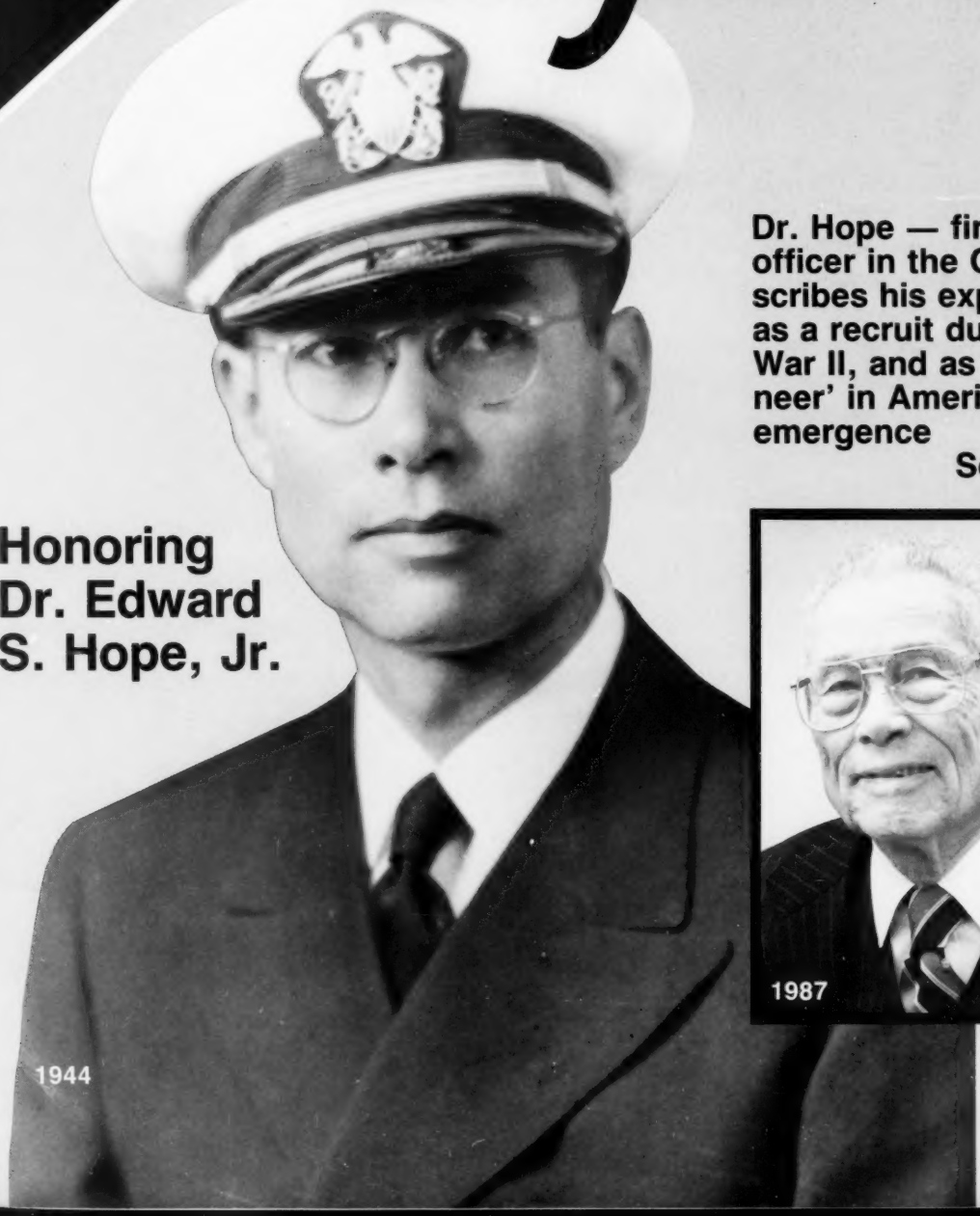
Major theme: Public Works

Winter 1986-7

NAVY CIVIL Engineer

Honoring Dr. Edward S. Hope, Jr.



1944

1987

Dr. Hope — first Black officer in the CEC — describes his experiences as a recruit during World War II, and as a 'pioneer' in America's Black emergence

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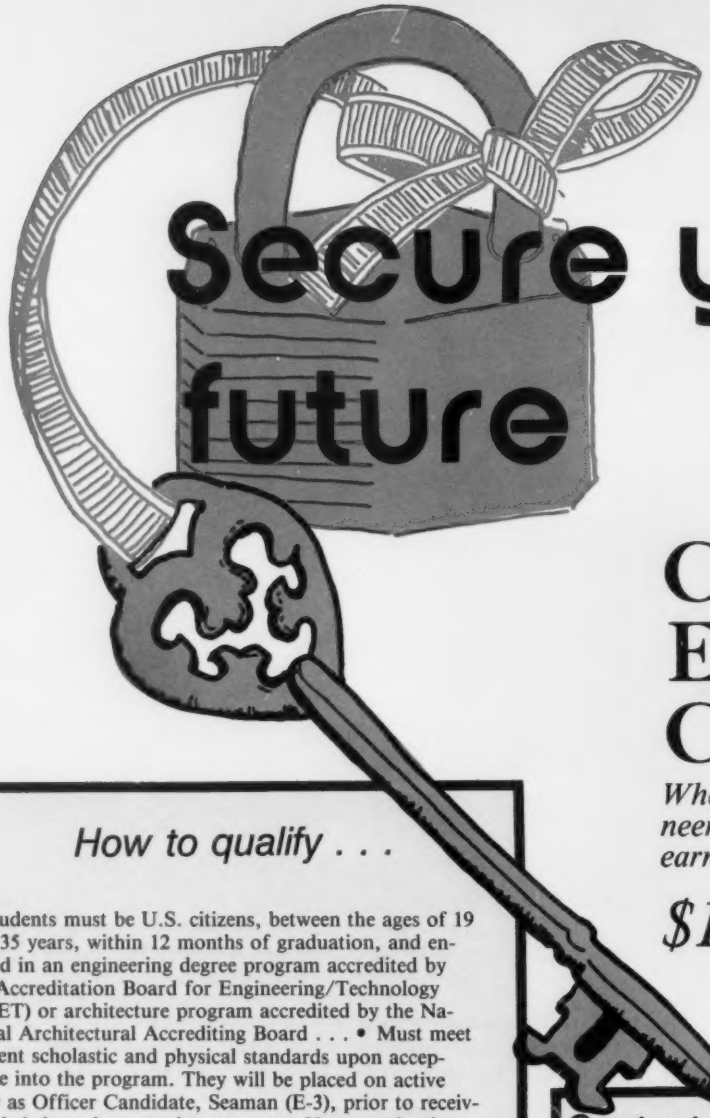

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THE COVER

Dr. Edward S. Hope was kind enough to provide a photo of him taken in 1944 when he was 43 years of age. The inset photo was taken by Ann Gray, Public Affairs Officer at the Navy Finance Center, Cleveland, Ohio, and our subject — Dr. Hope — recently celebrated his 85th year.

NAVY CIVIL Engineer

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ISSUE	THEME*	MATERIAL DUE	DISTRIBUTION DATE
SPRING 1987	Military Personnel	— — —	April 1-15, 1987
SUMMER 1987	History (CEC-Seabees)	April 15, 1987	July 1-15, 1987
FALL 1987	Contracting	July 15, 1987	Oct. 1-15, 1987
WINTER 1987-8	Environment	Oct. 15, 1987	Jan 1-15, 1988

*It is hoped to have several articles in each issue on the major theme, but no issue will be made up only of theme articles. All subject matter is welcome and will be considered for publication.

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Q&A

The NCE Magazine talks with

Robert E. Quinn

Captain, CEC, USN (ret.)

After more than 30 years in the Navy as a Civil Engineer Corps officer, most recently as the Navy's foremost authority in the public works area, would you share some of your thoughts and give us some advice on how better to serve the fleet through public works?

It is imperative that everyone in public works remember that they are in a service business. All of us expect to be treated courteously and promptly when we go into a store to purchase something. Public works is here to provide the same type of service to the activity. The commanding officer and all the people there expect that same prompt, courteous service from public works. Public works does not exist as a reason for itself. Naval bases are not here to keep public works employed. Public works is here to help an activity perform its mission.

A second critical item is to remember that we are part of the command team. The public works officer should almost be the right-hand man of the commanding officer because of the pervasiveness of the public works support to the operation of that entire activity. Keep in mind that the commanding officer runs the place and sets the priorities and we are part of his/her team. We must be involved in a mutual education and a mutual achieving of the station's mission and function.

Almost equally important is operating as a team within the public works department. In too many instances the engineers don't talk to the folks in maintenance and vice versa; transportation thinks they're an empire unto themselves; utilities and maintenance fight over who's supposed to maintain the valves, with the result being usually nobody does. Unfortunately, from NAVFAC-headquarters level on down we're too often organized as a bunch of compartments or pigeon holes and that's an item we've got to correct. We've got to work as a team to get the job done. Our approach and philosophy really needs to be one of going back to the basics.

What do you mean by, "going back to the basics?"

We've gotten all wrapped around the axle with wonderful goals and computer programs, neat gimmicks, and management devices. To effectively manage facilities, we've got to have a complete, accurate inventory of those things for which we are responsible, and we need to know the current condition of each. We need to know what condition they should be in. When you know these two points it's then possible to develop a plan to get from where you are to where you ought to be.

This has got to be a complete facility plan including all of the routine, recurring work, the one-time maintenance and repair items, the special projects for replacements or upgrades, and the new construction. The whole thing needs to be about a five-year plan of all things that must be done to get you from where you are to where you should be. With that information you can produce a budget, very detailed for the

present year, and pretty darn good for the out years. That will help in your working on the command team.

Instead of public works just being given X percent of the budget by the comptroller, you'll be able to explain why you need what you need and the results, if you don't get it. With that kind of information the commanding officer is going to make sure that public works gets all the money that the activity can afford. And of course if you've got all of that information, you can certainly do some workload planning, determine the kinds of people, the number of people, the sorts of things you should be doing in-house and the sorts of things you should be doing by contract.

Are there any areas that facilities managers should focus on?

A number of specific issues need to be addressed and the first one is family housing. The general perception of public works is an organization that performs maintenance, utilities, and transportation. Recently some have admitted that environmental issues and energy conservation are also included in public works. Almost as an afterthought one includes family housing.

Unfortunately, though we tend to treat family housing as an add-on, it is in fact the biggest single impactor on the image of NAVFAC, the Civil Engineer Corps, and public works in the eyes of the fleet, the customer we're there to support. That's the one place that we rub elbows with that command we're supporting 24 hours a day.

If we are the good business people that we think we are, we ought to be putting more effort into the family housing arena. One should be putting the effort where it's going to have the best result and biggest impact. As engineers, we may not perceive that family housing is that technically important. The base will continue to operate whether we do all those little nice things or not. But whether we are permitted to even function as a public works department frequently depends on the commanding officer or the fleet commander's impression of our abilities and he is getting most of that impression from the way we run family housing. So if we're going to put our money where it pays off we should be putting a significantly greater emphasis and effort into the family housing arena.

Family housing is an emotional and important issue, but what about the bases themselves?

In the general facilities area we ought to be doing preventive maintenance. That has been the basis of the NAVFAC system for more than my 30 years in the Navy. Unfortunately, we don't do preventive maintenance nowadays, we do breakdown maintenance. The recurring maintenance, the maintenance of dynamic equipment, checking filters, pumps, belts, motors, the things that are routine items that keep us from having major breakdowns just don't get done or are done very poorly.

I know that there isn't a base out there today that doesn't have a standing job order that calls for doing something on a facility that hasn't existed for three or four years. We just aren't putting sufficient emphasis in that area. We ought to be concerned with the activities' general appearances. A previous Chief of Naval Operations (CNO) got programs started that require us to make our bases look as if somebody designed them and they just didn't grow that way.

We need to be the implementors of that program and ensure that whatever we do in fact makes it look like somebody has planned the base and that somebody cares about it. Recurring maintenance and preventive

'We should be putting a significantly greater emphasis and effort into the family housing arena.'

maintenance are the reasons that public works exists. It's not necessarily the fun thing and you'll find that most public works departments have drifted away from it. They have drifted into construction because it's fun, it's more visible, it's "engineering." That type of work we ought to be doing by contract. We, with our in-house forces, are supposed to be doing the *maintenance* of the base, not the rebuilding or remodeling of it.

Are there any "big ticket" items that are overlooked?

The utilities are as critical and becoming more and more critical with the increase in electronics and computerization. The utilities system is basically unseen along with the sewer lines and water lines and the steam lines and everything else that is buried. They don't get an awful lot of attention until they don't work or something blows up. But in almost every activity, the utility budget is about 50 percent of the total budget. That indicates that we ought to be giving it some reasonable percentage of our attention.

As public works officers we ought to be giving a lot more technical management attention to the overall utilities area. In the NAVFAC goals system, we've got ample goals on maintenance, maintenance control, work scheduling, but almost no goals for utilities and that's where the money is being spent. A reprioritizing of efforts is necessary to ensure that we are doing what we can in the areas that are in fact going to pay off for the Navy.

You have touched on family housing, facilities maintenance, and utilities, what about transportation?

Transportation is one area where there are some real bright lights. Based on what the public works centers did in their CA studies and learning from industry, we know of ways to make significant improvements in the transportation support we provide. Every activity needs to make sure they're using the EFD and the information learned by the centers to get their organization and procedures as streamlined as possible. Simple things, such as an activity not owning a bulldozer or a backhoe, particularly when it's used only 10 or 12 hours per year. Bulldozers can be rented when needed. Sometimes we feel that we must own everything under the sun. It is dumb! It ties up money and it takes time.

'Public works is not only the key to future success, it is probably the key to whether NAVFAC and the CEC survives in the future.'

Equipment requires maintenance, and it's a big parts-support drain. We've learned how to be much smarter. We've got to make sure we are implementing these improvements. Of course transportation, like everything else, is here to make sure we meet the fleet's needs. That doesn't mean we should provide them with trucks when they ask for a pick-up. We need to determine the actual transportation needs of the customer and then meet them in the most efficient manner. We shouldn't expect or let the customer tell us the answer. They ought to be coming to us with a problem or a need and then we work *with them* on the proper transportation solution.

It seems as though utilities covers more than its classical definition. What are your thoughts on this?

We have generally lumped environmental concerns into the utilities category. Environment is too big to be stuck in the utilities area. It's also somewhat pervasive in its across-the-board involvement. It's big, it's complicated, and it's getting bigger by the day.

We have tried in the past to have a limited number of environmental experts, usually at the NAVFAC level, with some limited abilities at the EFD level. Environmental issues have now become such everyday business that we have got to have environmental expertise at the activity level. The activity will still rely on the EFD and ultimately NAVFAC for assistance with the really unusual and bigger problems. We can no longer expect to do everything from the Washington level. It's just gotten too big; it's got to be a day-to-day business of public works.

Are there any other areas to which we should pay closer attention?

A relatively new and exploding issue in public works is contracting. When I came into the Navy, contracts and public works were different. Today, you can't separate them. In fact, the typical public works department is doing at least half, if not more, of its business by contract and, depending upon how you actually count these things, they may be contracting somewhere close to 75 percent of their work. This trend is going to continue. As I mentioned earlier, contracting is the way you're supposed to perform the one-shot, construction-type items. Public works is in the maintenance business—the routine, recurring stuff. We've got to make some serious efforts to get ourselves back into doing the proper kind of work and getting out of the construction business with our public works forces.

I've often heard public works officers say that they feel frustrated when in-house staffing is in short supply and that they're not receiving adequate help from others when the department's expertise is limited. Is there a problem here? And if so, in what ways?

I perceive a significant lack of communications. I mentioned the need for it within the organization, but here I'm talking particularly of communication between the public works activity and the EFD and the major claimant. We've got to make sure that everybody is communicating both up and down the chain, that they feel comfortable doing so, and that the EFD is prepared to receive requests and requirements from an activity and respond to them.

Too often the public works officer feels that, "If I call the EFD, they'll think that I'm incompetent and I don't want them to do that, so I'll muddle through." Or they call the EFD a time or two and the EFD is overloaded and doesn't respond so they say, "There's no sense wasting my time." Staffing tends to be a poorly run business. When we lose a carpenter, our standard answer is "replace him with a carpenter." Facility planning permits us to determine what kinds of people we really need and in what numbers.

When we lose a carpenter, maybe we ought to be hiring an electronics technician or a painter, or a planner. We've got to be sure that as the manager of facilities we are looking at what staffing we need in the future to properly manage the facilities at our activity.

When we do determine the type of person we really need, then we've got to go out and be sure that we select individuals qualified for the job that we are try-

ing to fill. If we are looking for a supervisor, we should be selecting someone who has supervisory ability, supervisory inclination. We should not be promoting as a reward for past performance. If I pick on our carpenters again—traditionally when you need a new carpenter foreman, you go out and promote your most senior and frequently your best carpenter. All you wind up doing is losing your best carpenter and gaining your worst supervisor.

We should not be looking at who has done us the best job in the past and deserves a pat on the back. Give them a pat on the back, give them step increases, give them bonuses; do whatever you can, but don't promote them into positions for which they are neither suited nor qualified.

What can we use to start changing our organizations for the better?

Some of the tools that are presently available: the BEST* system which certainly is going to assist in doing the planning that is so critical. BEST, by providing computers, will permit a manager to manage. It permits data manipulation for the what-if drills; it permits you to do the planning, and the shuffling that you just can't possibly do otherwise because you can't get the people it takes to do those things by hand.

Another mechanism available to improve communications, designed to assist the activity, is the FEAT program. FEAT is intended to get the EFD to come to the activity and assist that activity in truly assessing how it is doing. This permits the activity to take the results of that assessment and use them in dealing with their major claimant to get the proper level of support to permit the activity to do its job the way it should be done.

You mentioned earlier that NAVFAC is a source of help. At that high of a level, how can NAVFAC really help an individual activity?

The entire NAVFAC facilities business has to be much more concerned about what is really best for, and what is needed most by, an activity. It cannot and should not be geared to the Washington bureaucrats. Too often our systems drift in that direction in an effort to be responsive to Congress, to OSD, to OPNAV. We continually lay more and more requirements on the activity, most of which are of no benefit to the activity and are in fact an added drain. This is an item that we must continually guard against. We must give priority to ensuring that we provide guidance and a system that is helping the activity do its business.

When there is a question of how we should look at an issue there is no question in my mind that the first and only priority is how is that going to affect the activity. The answer ought to be the one which has the most positive impact on the activity. If there must be a negative impact, let it be on the EFD, the headquarters, or the claimants, but don't put the monkey on the activity's back.

Base Engineering Support, Technical System

Are there any final words you'd like to leave us with?

With all the semi-negative stuff, I would like to conclude by saying that I think public works is fun. It's the diverse, continually changing part of our NAVFAC business. In a single day, the public works officer will get involved in almost everything that NAVFAC does in this world. You can't get bored; the variety of things you do makes each day a challenge. The numerous things that get completed each day give a true sense of accomplishment.

'We should not be looking at who has done the best job in the past . . .'

'Do what you can for them, but don't promote them . . .'

You certainly don't get that feeling in Washington and at many of our larger organizations, where the bureaucratic systems just don't permit quick results. In public works, you not only can, but you must make decisions, not only every day, but frequently—almost every minute. That's why I joined the Navy. It's the thrill of responsibility and authority, the chance to see results, and to know that you have made this Navy a better place because you have been here. Certainly, this is the spot where the entire NAVFAC family meets the fleet every day, all day. It's where the reputation of NAVFAC and the Civil Engineer Corps is established.

Almost without exception, the fleet commanders' and the commanding officers' impression of NAVFAC as a good or bad organization, the Civil Engineer Corps as a good or bad organization, is based upon what he or she has run into in the public works arena.

In my opinion, public works is not only the key to NAVFAC and the Civil Engineer Corps' future success, it is probably the key to whether NAVFAC and the Civil Engineer Corps survive in the future. It is the "bread and butter" of our business. It sometimes does not seem glamorous and important but it is the thing that keeps the Navy afloat. It is the fun part of our business and I just wish I had a chance to spend 30 more years at it. □

Make it simple; make it count!

By DOREEN KALB
Editor, Seabee Coverall
Construction Battalion Center
Port Hueneme, Calif.

Tom Peters believes the United States is experiencing a crisis of management — and it's time to do something about it before it is too late. Passionate in his beliefs, his ideas are basic and to the point. "Make it simple, make it count," he says.

Dubbed a "business evangelist," by a noted magazine, he is the co-author of "In Search of Excellence" and "A Passion for Excellence," the only two management books ever to rank number one on bestseller book lists.

Peters recently came to the Naval School, Civil Engineer Corps Officers, to speak to the Civil Engineer Corps Officers' graduation ceremonies of Basic Class No. 180 and the Seabee Chief Petty Officer Management No. 50 class.

An ex-Civil Engineer Corps officer, Peters was on active duty in Vietnam and Washington from 1966 to 1970. He served in the White House as a drug abuse advisor in 1973-74, and was at McKinsey and Company from 1974-81, becoming a full partner in 1977. He has engineering degrees from Cornell and business degrees from Stanford.

"This is the first time since I got out of the Navy that I have been back here," said Peters. "I am emotionally overcome by the experience. Without a shadow of a doubt — my years with the Seabees were the most exciting years of my life."

At the onset of his address he said, "The celebration of graduation is a major milestone — it is a time of new duties, and a unique time for reflection."

He pointed out the problems with American businesses today. "Our cars don't work, our semiconductors don't work, our schools and businesses don't work."

He said since Department of Defense management has its roots in the private sector, these problems ex-

tend into defense management and impair defense readiness. "We move too slow. We are too worried about the sophistication of everything when we should be worried about day-to-day readiness. You are going out to be a major player in the scheme of things; so it is your duty to do it better."

"This is the first time since I got out of the Navy that I have been back here. I am emotionally overcome by the experience."

He offered the following words of counsel to the graduates:

• **No. 1 — Before you go to work, mentally take your uniform off — every human being must earn respect.**

• **No. 2 — More is not necessarily better.** "General Motors has an overabundance of executives with master's and Ph.D's and yet loses market shares to Honda every day. The key is things that work — not sophistication and cost. Things that work — that is the point."

He cited the example of an experimental plant run by General Motors — an experiment that was supposed to fail, but instead proved to be a success. "The plant is run by Japanese executives and produces the highest quality of cars."

• **No. 3 — People are the key, period.** "I heard from a professor, once you put on the hat of a manager — you quit doing honest work. Your job as a manager is to facilitate and make people better."

• **No. 4 — Develop a passionate hatred for bureaucracy.** "I beg each and everyone of you to do this. Every time you receive a memo, stamp it, 'Received, but not read.' "

• **No. 5 — Be a royal pain in the neck wherever you go for the rest of your life.**

• **No. 6 — Logistics and support systems are it.** "What it is all about is things that are simple — things that work."

61 naval officers finish basic training

Basic Class No. 180 graduated from the Naval School, Civil Engineer Corps Officers on December 5, 1986, and 61 naval officers accepted assignments in all corners of the world. The class completed eight weeks of specialized training pertinent to the Navy's needs for shore installation engineering, public works management, and Seabee operations.

Ten class members finished with honors: Lt. Richard L. Aasland was the outstanding graduate. Graduating with distinction were Lt. Douglas H. Boothe, Lt. James G. Cruz, Lt. Mark G. Lutkenhouse, Lt. Hermogenes R. Munoz, Ens. Jeffrey M. Johnston, Ens. Jay D. Matthes, Ens. Phillip L. Nelson, CWO2 Kenneth M. Bennight, and CWO2 Michael A. Hoppe.

The graduation ceremony was held in the Needham Theater and featured world-famous author and lecturer Tom Peters as the principal speaker.

Lt. Aasland's photograph is indicated by a (★). Officers graduating with distinction are indicated by a (•), and those entering Seabee duty by a (†).

***Lt. Richard L. Aasland**
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to PWC San Francisco, Calif.

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BAS/U.S. Naval Academy
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Continued on next page

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to NAF Washington, DC

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to NONAVFACENGDIV Contracts Office, Crane, Indiana

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to NONAVFACENDIV C.O., Columbus, Ohio

Ens. Scott E. Humpert
BSPE/Univ. of Missouri
to NONAVFACENG-DIV C.O., Portsmouth, N.H.

Lt. Jay R. Huston
BSCE/U.S. Naval Academy
to WNAVFACENGDIV C.O., MCAS El Toro, Calif.

Ens. Gregory M. Ilkka
BSCE/Michigan Tech. Univ.
to Marine Corps Dev. & Ed. Cmd., Quantico, Va.

"Without a shadow of a doubt, my years with the Seabees were the most exciting years of my life."

• **No. 7 — Get back to the basics — the message is simplicity.** "Preparation is about simplicity and lack of sophistication made to work in times of trial."

• **No. 8 — Remember the customer.** "The customer is an important key, even in the military."

• **No. 9 — Get the hell out of the office.** "Hate offices, hate bureaucrats — love people."

• **No. 10 — Please never ever say — "We're doing this because this is the way it has to be done.** You're being paid to change and improve things. You should be able to say at the end of each day — 'What specifically and precisely is being done differently in my command because of me today?' That is my challenge to you today."

He offered this advice in conclusion: "Take your jobs very, very seriously; take the customer very, very seriously; take the commanding officers somewhat seriously; and don't take yourself seriously at all. The key is to have fun; have a ball every day." □

Tom Peters is presented with a constructionman's hardhat from a former shipmate.

speaking from topside

Leadership for Change

Perhaps my most persistent impression these days is that we are immersed in a period of unusually dynamic and accelerating change. A few illustrations:

- The Defense Reorganization Act of Fiscal Year 1987 mandates reorganization and staffing reductions for DOD and the military departments. The roles of the unified commanders are to be strengthened.
- The President has signed an Executive Order which mandates a 20 percent improvement in productivity for the federal government by 1992. The Department of the Navy is now preparing a productivity plan designed to accomplish the President's goal "well before 1992."
- Secretary Lehman is aggressively pursuing reform of the business side of the Navy and has achieved fundamental, almost revolutionary changes in hardware procurement, with impressive improvements in the amount of procurement accomplished competitively, and substantial increases in use of fixed-price, rather than cost-reimbursable, contracts.
- To further reform the business side of the Navy, Secretary Lehman initiated the Navy Industrial Improvement Program, using the management consulting firm of Coopers and Lybrand to develop far-reaching plans for improved productivity and cost reduction at Navy Industrial Fund activities: shipyards, naval air rework facilities, ordnance activities, laboratories, and public works centers (PWCs). The PWCs have developed an ambitious corporate improvement plan which commits the corporation to a continuous process of strategic, long-range planning to improve productivity, cut costs, and improve performance. PWC Norfolk is the pilot activity, working with a Coopers and Lybrand team to develop and test promising initiatives for export throughout the PWC corporation.

The list goes on and on: clearly an intensive dose of change. To give us further impetus for change, resources are certain to decline from levels previously planned, just as the 600-ship Navy, with increased demand for resources to operate, is becoming a reality. The budget outlook for the next several years forecasts very limited real growth at best and real possibility of no growth or even slight decline. Clearly this combination of intensive change and increasingly limited resources poses a challenge—but also an opportunity, since in a period of change, the system "loosens up," creating unusual opportunities to achieve long-sought improvements.

So how do we cope with this challenge and capitalize on this unusual opportunity? We need "leadership for change," and you—yes, that's right—YOU—are *IT!* Okay then, how do we lead for change?

There is a lot of private sector interest in leadership for change these days as companies struggle to keep themselves competitive in our emerging global economy. Their programs typically are called "quality improvement" or "productivity improvement," but regardless of title, often have much in common. Don Nordeen, responsible for quality assurance in the Buick, Oldsmobile, Cadillac Division of General Motors, says, "Quality improvement requires three things: leadership, leadership, and leadership." Increasingly these programs call for "leadership" rather than "management." Warren Bennis distinguishes between the two with this catch-phrase: "Good managers do things right; good leaders do the right things."

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Lt. Stephen D. Jennison
MSOE/Univ. of Rhode Island
to NAVSTA Roosevelt Roads, Puerto Rico

•Ens. Jeffrey M. Johnston
BSCE/Colorado State Univ.
to PWC Pearl Harbor, Hawaii

Ens. Lee P. Josselyn
BSCE/Colorado State Univ.
to PWC Agana, Guam

†LT Marcel Koto
to Malagasy Army

Ens. Gregory A. Kray
BSCE/Univ. of Wisconsin
to SONAVFACENGDIV
C.O., Cecil Field, Fla.

Ens. Gary R. Leach
BSCE/Penn. State Univ.
to WNAVFACENGDIV,
Vallejo, Calif.

†Ens. Edgar W. Leonard
to NAVCONSTRACEN,
Port Hueneme, Calif.

•Lt. Mark G. Lutkenhouse
BAME/Univ. of Calif. at Los Angeles
to CHESNAVFACENGCOM,
Washington, D.C.

Lt. Joseph Madden
BSIE/Texas A&M Univ. to
Quantico, Va.

•†Ens. Jay D. Matthes
BSIE/Univ. of Nebraska
to NMCB-62, Gulfport
Miss.

Ens. Jamie W. McGonagill
BSME/Univ. of Arizona to
OICC SWPAC C.O., Subic
Bay, R.P.

Lt. Emmi A. McLean
BSCE/U.S. Naval Academy
to LANTDIV C.O., Sewells
Point, Va.

†Ens. Gregroy E. Miller
BSSE/U.S. Naval Academy
to NMCB-5, Port
Hueneme, Calif.

†Ens. Ronald T. Miller
BSIE/Georgia Tech
to NMCB-62, Gulfport,
Miss.

Continued on next page

Ens. Clayton O. Mitchell
BSE/Calif. Poly State Univ.
to CHESNAVFACENGCOM,
Washington, D.C.

Ens. Jeffery N. Mobley
AB/Princeton Univ.
to Keflavik, Iceland

Ens. Charles B. Mims
BSCE/Univ. of Missouri
to NONAVFACENGDIV,
Warminster, Pa.

•Lt. Hermogenes R. Munoz
BSCE/Univ. of Mississippi
to OICC Travis AFB Hospital
Fairfield, Calif.

•Ens. Phillip L. Nelson
BSCE/Iowa State Univ.
to NAS South Weymouth,
Mass.

Ens. John J. Nesius
BCE/Univ. of Minnesota
to OICC Med C.O. Det.
La Maddalena, Italy

Ens. Gene M. Odom
BSOE/Florida Atlantic Univ.
to WNAVFACENGDIV
C.O., Long Beach, Calif.

Ens. Michael L. Phillips
BSME/West Virginia Univ.
to LANTNAVFACENGDIV,
Camp Lejeune, Jax, N.C.

1LT Dorland E. Ranjandrianson
to Malagasy Army

Ens. Mark A. Terrill
BSGOGE, New Mexico Inst.
of Mining & Tech.
to PWC Guam

Ens. Mark E. Van Vleck
BSCE/South Dakota School
of Mines & Tech.
to SONAVFACENGDIV,
Corpus Christi, Texas

1LT Claude A. Voca
to Malagasy Army

Ens. Karl H. Wenner
BSPE/New Mexico
Inst. of Mining & Tech.
to SONAVFACENGDIV Con-
tracts Office, Orlando, Fla.

Ens. Donald E. Whitehurst
BSCE/Colorado School of
Mines
to WNAVFACENGDIV C.O.,
WPNCN China Lake, Calif.

speaking from topside

Continued from page 9

And what are these "right things?" Evidently, it's not an easy task. We have the current example of General Motors, which acquired Ross Perot's company, Electronic Data Systems Corporation, to gain a competitive edge through an infusion of computer technology. Ross Perot, before his parting of the ways with the GM board of directors, is reported to have characterized his task of helping to modernize GM as "teaching the elephant (GM) to tap dance."

"People don't resist change; they resist the *uncertainty* that accompanies change."

High-performance organizations do, however, seem to have several characteristics in common: they are able to *energize* the organization, top to bottom; they focus the efforts of all their people and resources on the objectives of the organization; they provide an environment which encourages—or better yet, *stimulates*—each person to contribute to his or her potential; and they somehow successfully weave these individual efforts together into a synergistic whole. Note the emphasis on *people*.

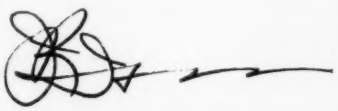
Your job, then, as a leader for change, is to first create an environment which actively encourages individual contributions, and then to achieve coincidence of personal and organizational goals. The emphasis is on people, and on collaborative, or *team* effort. The necessary focus can be achieved through a well-defined *mission, shared values,* and clear, easily grasped *guiding principles.* Together, these three elements create the "corporate culture." There are some notable differences between this approach and the more traditional one of planning, organizing, staffing, directing, and controlling—an approach which achieves focus, but *restricts.*

You may be thinking, "Ah, but I recognize that traditional approach—that's the Navy way." Perhaps true, but I'm optimistic that attitudes are changing; there is a growing recognition that we *must* provide increased flexibility if our subordinates down to lowest levels are to manage more effectively. Increased flexibility is also virtually a condition precedent for achieving true personal accountability, as sought by Secretary Lehman and the Navy's top leadership, which encourages me that it will, in fact, be forthcoming.

Why is change so difficult—like "teaching the elephant to tap dance?" Newcomb gives us a clue: people don't resist change; they resist the *uncertainty* which accompanies change. The leader can facilitate change by reducing the uncertainty. And "exhortation" won't work. We can think of our organizations as systems in equilibrium—behavior and shared organizational values are in balance. If we simply exhort changed behavior, without changing the organizational values, we will get short-term behavioral change at best; the system will be out of balance, and the unchanged shared values will drive behavior back to the original, "equilibrium" pattern.

The leader needs to create *new* shared organizational values which will be in equilibrium with the desired new organizational values which will be in equilibrium with the desired new behavior. Top management commitment is absolutely essential in establishing these new values—management must "lead the parade" for change in Newcomb's phrase. And the leader's *actions* are critically important—"do as I say" simply won't cut it! So be a leader for change—identify a logical "next step" and take it!

Thanks for letting me share these thoughts with you.



RADM Jon R. Ives, CEC, USN
Deputy Commander
Public Works Centers

A better Navy through model installations

By ROBERT A. FRAKES
Director, Management Analysis
WESTNAVFACENGCOM

Early in 1984 the Office of the Secretary of Defense (OSD) gave a few so-called model installations an extraordinary degree of freedom from regulations and challenged commanders to "strive for excellence" in everything they do by encouraging innovation, incentives, management flexibility, and information sharing through identifying and removing impediments to efficiency.

The original 15 activities from the Navy, Air Force, and Army Departments have been expanded to well over 40 service activities participating in 1986. The Navy activities participating are:

NAS Cecil Field, Fla.
NAS Lemoore, Calif.
NAS Meridian, Miss.
NAS North Island, Calif.
NATC Patuxent River, Md.
NAVSTA Mayport, Fla.
NAVSTA Rota, Spain
NSY Charleston, S.C.
NTC Great Lakes, Ill.
NWC China Lake, Calif.
PMTC Point Mugu, Calif.
WESTNAVFACENGCOM, Calif.

The model installations concept has proven to be highly successful as it continues to expand, allowing more and more activities to participate.

In January 1985, Western Division (WESTDIV) Naval Facilities Engineering Command was designated as Model Engineering Field Division (Model EFD) by Bob Stone, Deputy Assistant Secretary of Defense for Installations, who was solely responsible for the development and implementation of the Model Installations Program (MIP) in the Department of Defense.

The purpose of the Model EFD program is to provide for our customers—the sailors, marines, and airmen in the WESTDIV area—excellent facilities and services. It is WESTDIV's goal to provide more defense capability in the area of construction for the same dollars by effectively performing our mission, providing excellent places for our people to work and live, and at the same time, efficiently providing state-of-the-art construction and maintenance services needed by the Navy.

Chief of Naval Operations (CNO) guidance to its major claimants requires that waiver requests from model installation commanders be approved quickly, with disapprovals the rare exception. Commanders or staffs receiving waiver requests who do not have approval authority have been challenged to process these requests in three workdays recommending approval of the request or forwarding it to CNO for approval. Nonresponse indicates concurrence of the requested waiver.

Admiral Watkins, while CNO, further stated that, "The Model Installations Program is designed to make Navy activities better places for our people to live and work, and to encourage innovative approaches for improving the readiness of our shore establishment in support of our growing fleet."

As a Model EFD, WESTDIV has expanded the model installation concept to include all of our functions and areas of responsibility, not just the construction roles. As such we look for new ways to do our jobs more efficiently and increasing productivity and levels of service to our customers. We have attempted to learn from our mistakes, to keep doing those things which have proven to be successful, and to spread the word about good ideas that are working well.

In order to expand the influence of the MIP of WESTDIV, the commander has invited the Officer in Charge (OIC), Pacific Northwest Branch; Commanding Officer, PWC San Diego; and the Officer in Charge of Construction, NWC China Lake, to participate fully as model activities in the MIP as part of the WESTDIV effort.

In order to find and implement ideas that improve efficiency, WESTDIV is free to seek relief from existing "red tape." Where appropriate, the commander and all in WESTDIV's chain of command are prepared to waive regulations within their authority and all major commands, Secretary of the Navy, and OSD are geared to act quickly on our requests. Although personnel and public laws cannot be violated, relief from legislative or executive controls has been sought when necessary.

Success in this program can be attributed to the people of the organization and the dynamic and assertive methods used to make it work. No idea is too small or insignificant to be considered—big ideas grow from small ones and the command solicits and encourages submission of all ideas on how we can do all our jobs better.

A Model EFD steering group has been established to give each employee's idea the fullest consideration. One representative from each internal division meets regularly to discuss proposals with the objective of determining how each proposal can be adopted. The Model EFD initiative processing chart illustrates the steps used to evaluate and implement each proposal.

The originator can be a WESTDIV employee, a member of one of the activities where our support is received, other EFDs of NAVFAC, or from private industry. The suggestor has the option of submitting the proposal through the chain of command or directly to the Model EFD office.

Once a Model EFD proposal is received it is referred to the steering group for review. At this point an award is presented to the initiator in the form of a coffee mug.

The steering group has three options. They may recommend approval, disapproval, or refer the proposal to a specific WESTDIV code for further technical review. Once a position is established to support or not support the proposal the commander is presented with a complete analysis from which to make a decision. Approval is always the goal.

Along with the approval letter from the commander goes a tasking letter which directs the appropriate department to implement the approved proposal. The department must also prepare an evaluation plan in order to measure the degree to which the objectives of the initiative were achieved. Approved waivers are measured much the same as in the Beneficial Suggestion Program evaluation.

An attempt is made to document tangible and intangible savings to the command. A unique aspect of the Model EFD program is where possibly all or part of the savings is returned to the activity for use as discretionary funds for quality-of-life improvements or other appropriate projects.

Upon completion of the evaluation of approved waivers the initiator may be considered for a cash award. Cash awards are given based upon the tangible or intangible savings identified. The Incentive Awards Program is used as the basis for cash awards. In cases where significant savings will occur and the proposal qualifies, it will be submitted additionally under the Navy Beneficial Suggestion Program as well as the Model EFD Program.

Those waivers that have proven through evaluation to be successful are considered for implementation NAVFAC and Navy-wide. Some of the proposals that have particular applicability to Navy public works are:

Model ROICC: Commander, WESTDIV, has appointed the Officer in Charge of Construction (OICC), Naval Weapons Center, China Lake, a Model OICC to develop and test new, innovative methods to manage construction at the installation level. Initially, OICC China Lake is testing an expanded two-step contracting authority, is designated as a Level 1 contracting officer, and has default determination authority up to $50K. As additional OICC proposals are developed, they will be tested and evaluated at China Lake.

Design Drawing Size: WESTDIV has received approval to produce design drawings in the "D" size (24″ x 26″) in lieu of the current requirement of "F" size (28″ x 40″). The smaller drawings are easier to handle, less expensive to reproduce, and are in accordance with the industry standard. An estimated cost saving of 13 cents per sheet is expected.

Bonding Requirements: An informative initiative was submitted notifying the chain of command that WESTDIV would begin requiring bonding of selected contractors for projects under $25,000. The revision to current procedures has increased the quality of contractors receiving low-cost projects.

Projects Approval Authority: The origin of this proposal was an Air Force waiver request. The WESTDIV proposal is for unlimited maintenance and repair project and major claimant construction project approval authority utilizing local funds. This approach allows additional flexibility in the funding and acquisition of this type of project.

Gas Piping: Proposal recommended numerous changes to gas riser design. Adoption of proposal will result in higher-quality installation, a shorter installation period, and three-quarters of the previous cost.

Prompt Payment of PCS Travel: Initiative requested authority to authorize payment of a PCS claim for reimbursement of the expected amount of travel expense based on documentation supporting that the PCS move has been completed.

Class Deviation to FAR 8.404 and 8.404.1: Initiative permits contracting officers to solicit bids or test the market to seek alternative sources of supply to mandatory federal supply schedules.

Air Conditioning Design Criteria: Initiative allows commander, WESTDIV, to approve exceptions to design criteria for air conditioning, evaporative cooling, dehumidification, mechanical ventilation, and refrigeration. Benefits are reduced time and effort in reviewing exceptions.

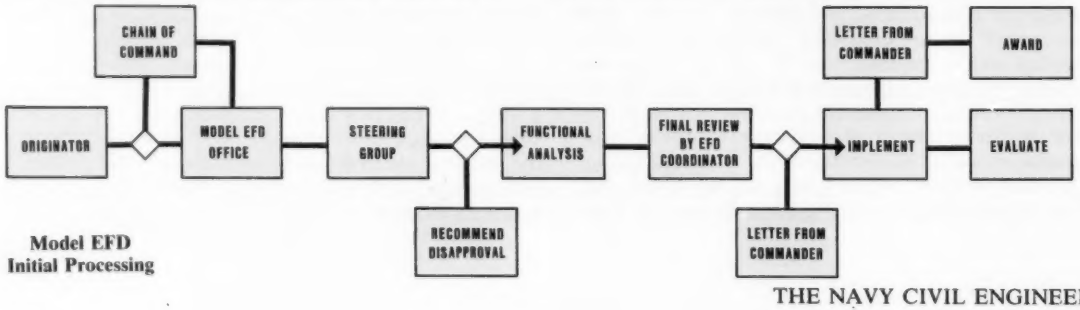
Use of Relocatable Facilities: WESTDIV is given the authority to lease or purchase relocatable facilities when determined to be advantageous by economic analysis. Initiative provides needed flexibility in the procurement of temporary facilities in order to meet command administrative office requirements.

SIOH Collections: WESTDIV has received approval to no longer track low-dollar value SIOH collections where the cost of administration exceeds the value collected. The reductions of workload in processing funding documents at the EFD, OICC, and installations are expected to be significant.

Local Authority to Lease Vehicles: Waiver provides local authority to lease vehicles for up to one year vice existing requirement for GSA (via NAVFAC) approval for leases in excess of 60 days. Benefits include more rapid response to needs of short-notice projects and elimination of expensive short-term leasing/rentals.

Two-Step Procurement: Proposal delegated authority to a WESTDIV field office to implement two-step sealed bidding procedures for selected construction projects. Delegated authority will result in improved responsiveness to facilities requirements for NAVFACENGCOM contracts.

Family Housing Funding Document: Proposal discussed issuance of one funding document for each family housing budget project indicating total annual allotment and quarterly breakout. Implementation of proposal has reduced labor costs required to issue annual family housing operations and maintenance funding



Model EFD Initial Processing

documents by a total of $9,100.

Divert Housing Units: Proposal was to grant China Lake Housing Office temporary authority to permanently divert housing units as they became excess to local needs. Benefits will include reduction in paperwork and more timely processing of diversion actions.

Information Systems Projects: Initiative provides delegation of authority to the command for various systems acquisitions (e.g., workstations, printers, etc.) up to $30K vice current $10K limit. The majority of such acquisitions exceed the $10K limit; therefore, the command, which already ensures thorough and extensive review/evaluation, will also enjoy a more rapid and efficient approval process and have tighter control over IS project planning.

Revised Special Project Funding Format: Proposal was to implement a new special project funding form designed by the initiator. Use of this form will reduce relays by ensuring all required information is included and will be easy to review and track.

Contractor Invoice Review Form: Proposal was to use a review form designed to ensure all required data are present, facilitating prompt payments without interest penalties, and resulting in contractor satisfaction. New form has been included in the WESTDIV ROICC Manual.

A-E Guide Section: The A-E Guide lacked standardization in A-E responses to design review comments. Newly implemented revisions to guide now require standardized responses to enable a smoother review process.

Travel Orders: A local substudy group tackled the problem of delays in processing travel orders within the WESTDIV Headquarters. As a result of the group's effort, a one-stop travel-order processing system has been implemented. Under the old system, orders passed through three separate stations before issuance. The proposal eliminated two middle steps as "unnecessary" or "action to be done later" and established one-stop service for all employees. The process has saved time in approval of orders. □

Green flag of ecology flies in Pacific

By SCOTT D. HAMILTON, JR.
Special Assistant for
Environmental Planning
PACNAVFACENGCOM
Pearl Harbor, Hawaii

When the Green Flag of Ecology was first introduced during Earth Day 1970 demonstrations for the global environment, few would have believed that in 1972 it would be used by Navy to identify the winners of a new competition established by the Secretary of the Navy. The intent was to recognize initiative and achievement in environmental protection.

As indicated in the *Environmental and Natural Resources Protection Manual,* Chapter 17, better known as OPNAVINST 5090.1, the Secretary of the Navy annually announces eight awards to various ships and Navy and Marine Corps shore activities for outstanding environmental protection accomplishments during the preceding calendar year.

The Pacific Division, Naval Facilities Engineering Command (PACDIV) has been very successful in mobilizing staff civil engineers and others to field quality candidates for the Commander in Chief, U.S. Pacific Fleet (CINCPACFLT) nomination.

In one year, two dozen candidates vied for consideration, with the result that of five categories nominated, CINCPACFLT received four awards for the Pacific region. With entries in 13 of the 14 years of the award, CINCPACFLT can claim 23 awards in the five categories it enters.

It has not been easy to ensure a large number of quality entries each year, as many also-rans may be discouraged and decide not to enter the subsequent year. Experience shows, however, that many winners score only the second time around. Furthermore, it is wise to begin assembling the package at least six months in advance of the deadline of early November.

Without a winning example in hand, some project sponsors feel inadequate in developing their own package. Experience shows that the more inventive the package, the higher the rating. It takes times to forward the award submission through the chain of command. This requires patience and monitoring.

PACDIV has done its best over the years to provide encouragement and "helpful hints" to all interested parties. Each also-ran candidate receives a specific review or critique for future reference, to encourage a re-entry. The nine factors of award consideration are given on page 17-2 of the Manual and should be read carefully. Over-the-counter advice is available from the author at (808) 471-3088. Several winning examples are held at PACDIV for reference of those passing through.

It is difficult to estimate the competition in the categories of large ships, small ships, large shore activities, small shore activities, and naval industrial facilities. Interest tends to come in waves, but frequently there are no candidates whatsoever in the small ships category, and the award goes at the national level to the best available candidate. While the Secretary of the Navy (SECNAV) is scheduled to announce the award winners on 15 January, frequently the pressure of priorities delays the announcement until later in the spring.

The SECNAV Environmental Protection Awards, while quite an honor, are not featured in *Time, Newsweek,* or *People* magazines. The public does not always see the flag flying, nor the plaque awarded. However, the personnel of the winning ship or facility have the satisfaction of knowing their environmental protection achievements rank with the best, and the recognition helps spur personnel to achieve more in the future. □

Good communications — the key to success

By LCDR JOHN M. SHREWSBURY
P.E., Fla.
PWC Pearl Harbor

Over the past several years the *Navy Civil Engineer Magazine* has published several articles on both the staff and activity civil engineer. The majority of articles centered on the experience, rank, and organization necessary to become a staff civil engineer (SCE). I want to change the concept to the definition of a staff and activity civil engineer, their common problems in a changing environment, and some proven methods that have yielded success.

In a geographical area where several public works departments have consolidated to become a public works center (PWC), there are two groups of facility managers who provide the guidance for their activities' facility programs and interface with "the center." The first is the staff civil engineer who is assigned to an activity serviced by the center. Typically, the SCE has additional duty orders to the center to enhance ties to the center.

The SCE is assigned for primary duty to a single activity because of the activity's large annual facility budget, its associated volume, variety, and complexity of work. The immediate support staff ranges from the SCE alone up to 40 people; all depending on the activity's commanding officer's desire and ability to provide a support staff to the SCE. On the island of Oahu there are seven SCEs ranging from a CEC commander for the shipyard to a couple of lieutenants junior grade. In fiscal year 1985 the SCEs accounted for $72.6 million or 44 percent of PWC Pearl Harbor's total revenue; the SCEs spent $25.4 million on maintenance and repair of real property and another $38.5 million on utilities with the center.

The second group of facility managers are the Activity Civil Engineers (ACE). They are assigned directly to the PWC and provide facilities management assistance on a part-time basis to several customer activities with fewer facility needs than those with an SCE. Typically, the ACE will support a tenant activity of one of the SCEs; this often is a point of confusion on who the tenant activity should consult.

Usually the SCE has responsibility to provide a structurally sound exterior to the building and the tenant pays for any self-initiated modifications and interior maintenance. At Pearl Harbor we have ten ACEs, including two lieutenant commanders and three civilians. The ACEs support 250 shore customers, and over 250 U.S. and foreign ship and submarine accounts. The ACEs' activities in fiscal year 1985 accounted for $90 million of revenues to the PWC of which $31 million were utility costs.

The SCEs and ACEs are the hub of a fast-paced, ever-changing facilities program where priorities, job requirements, and funding can change quickly without notice. Too often day-to-day crises obscure the long-range plans of correcting facility deficiencies in an organized, well-executed plan. Frequently, commanding officers, because of their short-tour lengths of about two years, push vigorously for fast results on facilities matters; this forces priority of work changes and subsequent delays to older work.

The sheer volume and variety of customer requirements in a PWC can be amazing. PWC Pearl Harbor has approximately 5,000 requests for work in a system that each requires over 80 manhours of effort. About 56 percent is funded work for either shop or contract accomplishment via open-end service contracts such as asphaltic concrete paving, grounds maintenance, etc. About 125 new requests are received weekly to stay near the 5,000 level in the system. Also, over 500 emergency service requests are accepted daily which cover all work up to 80 manhours; this is the most of any of the nine PWCs and is largely attributed to the 9,300 housing units for which we provide day-to-day maintenance.

Navy PWCs are financially based on the Navy Industrial Fund (NIF) system. The NIF system is totally reimbursable, meaning all costs of operation are charged to the customer as in commercial business. The center establishes a fixed rate which includes labor, equipment and facilities maintenance, overhead, labor acceleration, capitalization for replacement equipment, etc.

The rate is fixed for an entire fiscal year beginning October 1. NIF is often said to really mean "nothing is free." Such a financial climate causes the customer, our Navy activities and other services, to carefully consider their true needs before committing funds.

As the customers pay their bills they replenish the center's operating funds. This is a simplistic explanation of a very complex world of funding, but the most critical aspect is that the SCEs and ACEs must learn much about financial operations and cannot divorce themselves from fiscal matters.

The SCEs and ACEs are best categorized as the "voice of the customer" in the center. They must know the system, its rules, and who is responsible for what, which is often confusing and frustrating because of conflicts with requirements and the rules of operation. They are frequently called on to investigate hold-ups and problems, determine acceptable solutions, and get results.

Regardless of the volumes of rules and forms and their complexity, most problems boil down to a single issue—communication. As senior ACE, communication is a daily source of problem. With everyone's good intentions, and good intentions abound, someone who must take a crucial action is not notified or informed, or the form or memo does not get to the right person who can prevent a crisis. Success in facilities management is most often achieved by the leader who promotes steady communications up and down the chain of command and between the staff, the customer, and the PWC. People who are immersed in day-to-day problems

often forget or don't recognize the importance of a single piece of information, consequently do not forward it to the person who could prevent a crisis.

A few tools are helpful in promoting better communications and enhancing success—memos, letters, reports, and messages from within the PWC, from NAVFAC, the fleet, and PACDIV, which could have any effect on both day-to-day and long-range programs. This package is published every two to four weeks with a short memo explaining the importance of some enclosures.

Monthly meetings with the SCEs and ACEs are an excellent means of giving updates to ongoing programs, discussing solutions to common problems, and getting feedback on day-to-day operations. Department heads, including the production officer, frequently attend to provide updates to programs, answer questions, and receive suggestions.

A 30-minute training session held weekly covering numerous aspects of our business, both technical and managerial, educates the engineers about their jobs as facility managers; these briefings are taught by various department experts including occasional PACDIV support.

The goal is to improve the engineers' understanding of their responsibilities and the rules and systems under which they work; this minimizes floundering on a problem and eliminates ignorance of policy and procedure. This is a long-term productive program which achieves its purpose.

Participation in training for public speaking and writing is encouraged. Toastmasters is excellent public speaking training and there are associated classes and seminars available. Equally important is the ability to write. Engineers and architects usually are not skilled writers and polishing this ability is a must for career advancement regardless of your job.

The most beneficial result of improving communications between the activities and the PWC is minimizing the damaging syndrome of "us and them" which seldom achieves positive results. The ACEs and SCEs cannot "wash their hands" of a problem by turning a request into the center, but must retain the responsibility to achieve results and see the work through the center to accomplishment. When confronted with the problem, ask what actions you have (the SCE or ACE) taken to resolve the problem.

Another action to improve communication is an occasional session between the center's commanding officer and a few SCEs and ACEs to discuss planning, operations, and problems. This short session eliminates much of the misunderstanding during information transfer within the organization; it also gives the commanding officer (CO) an opportunity to see how the facility managers feel about the center's support and how they are managing. Another set of eyes and ears in the field is helpful to both the center, and activity COs.

Public works is the largest portion of our Civil Engineer Corps business and affects us all throughout our careers. The PWC business is the ultimate in challenge to a job that is inherently fast-paced and demanding. A tour as an SCE or ACE teaches the difficult lessons of management within a large organization and importance of improved customer relations in a cost-reimbursible environment, lessons not taught to such an intense degree anywhere but in a PWC. The success of an SCE or ACE is dependent both on their technical knowledge, and to a greater degree on their ability and willingness to communicate. The staff and activity civil engineers of today are our facility leaders of tomorrow. In this ever-changing business of supporting the fleet, good communications flow is the real key to success. □

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Dr. Edward S. Hope

A pioneer in the military Black emergence, Hope tells what it was like for the first Black officer in the Civil Engineer Corps.

by DR. EDWARD S. HOPE, SR.

"Do you mean, sir, that I am the first to salute you," said the huge Marine. "That's right," was my smiling response. I had arrived! And moments later I and "my gear" were on our way into the camp at Davisville, Rhode Island.

Past were the youthful days of reading volumes of *The Battleship Boys, The Dreadnaught Boys,* and other youthful glamourized fiction as well as the glorified history—"I Have Just Begun to Fight," "Damn the Torpedoes . . .," the days visiting the Hampton Institute from where the fleet could be seen in Hampton Roads and the happy shore-leave boats discharging at Old Point Comfort. The unforgettable summer when at age thirteen I had been "the crew" (the others were captain, mate, and chief engineer) on a two-masted bug-eye rigged yacht.

Like many other boys living far from the sea (in my case, Atlanta, Georgia), I too had felt the call of the sea. Perhaps it had started when as a little boy I attended a lantern-slide lecture by a Navy lieutenant who had been on the world cruise with Roosevelt's Great White Fleet. As a boy I also had gone to Beaufort, South Carolina, with an uncle who visited Captain Small (for whom Camp Small at Great Lakes was named). On this visit I had not only hands with the venerable old man, but had held in my hand the beautiful medal which he had received for taking and turning over to the federal forces the Confederate ship "Planter."

Past too were the years of study: liberal arts at Morehouse College in Atlanta, Georgia; civil engineering at MIT, including a master's degree at this institution.

Meanwhile, my practical experience had not been neglected. An apprenticeship as a carpenter and later mechanic's helper leading to journeyman mechanic was accomplished which merged into general contractor experience part time and summers throughout my school years.

Finally, during the summer before my master's degree studies, I had full responsibility for a small but complete survey for a water power project for the Grenfell Medical Mission at the northern tip of Newfoundland, then a British Crown Colony. This survey formed the basis for my master's degree project, *The Design of a Water Power Project for St. Anthony.*

Following graduation there was a year of highway construction in Long Island, N.Y. Then three years in Brazil in hydroelectric development with the American Foreign Power Company. When in 1930 the effects of the depression finally reached Brazil and further development was suspended, I returned to do miscellaneous engineering work until I became the superintendent of buildings and grounds at Howard University.

This in one way or another called upon practically all of my education and experience at that time and more, involving everything from the new steam-electric power station to planting flowers around the president's house. During this period I found time to earn a doctorate in administration from Columbia University.

One night in 1944 I read a brief announcement that the Navy planned to commission two Negro staff officers in each of several fields including engineering. Where was the Navy going to find *two* engineers? In those days they were few and far between. I had already been urged by my Army friends and relatives to apply for a commission in the Army. I was not interested. I was in a good job which was declared to be essential to the national health and welfare. I was already over the draft age and was the air raid warden for the University. The announcement concerned me because I felt that there was a possibility that of a few engineers who were labeled Negro there were few, if

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Y SALUTES

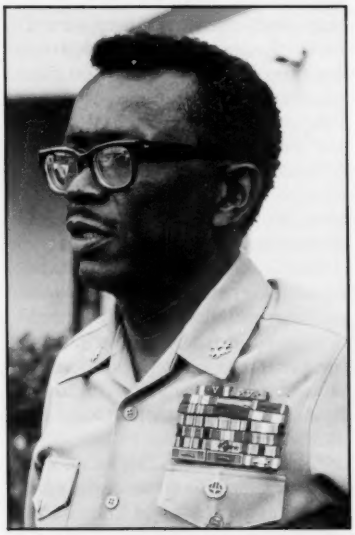
LCdr. Samuel S. Williams

A Civil Engineer Corps career officer relates his experiences and describes the opportunities for Blacks in today's integrated Navy.

By JO1 DAVID B. GUISE
Public Affairs Office
COMCBLANT

Attaining the rank of second class petty officer was a realistic goal for Black Navy men in the racially troubled times of the 1950s. To aspire to greater heights meant a frustrating battle against a system that offered very few opportunities for Black men. Of course, Blacks and other minorities could join the Navy and serve their country—but for the most part their service was limited to the confines of Navy galleys and wardrooms where they worked as stewards. Other enlisted career fields were not routinely open to them. That's what 17-year-old Sam Williams thought when he joined the Navy in May 1955.

It was during boot camp in Bainbridge, Maryland, that the young recruit learned he was getting a chance very few Blacks before him had received. To this day, some 31 years later, Williams still wonders why the door suddenly opened for him. "They called my name and said I was going to be a Seabee," Williams recalled.



"I don't know why or how that happened."

No matter the reason, Williams realized he had been given a unique opportunity—a chance to succeed. That's all he needed. A chance is all Sam Williams has ever needed.

Williams has made the most of his opportunity. He began as a constructionman apprentice, advanced through the utilitiesman rating to master chief petty officer, became the first Black Seabee to be selected for warrant officer, and believes he is the first Black man to be commissioned in the Civil Engineer Corps (CEC) through the Limited Duty Officer Program. And the 48-year-old grandfather of eight is far from through. In fact, at a time when most Seabees hang up their toolbelts for the last time, Williams has plans and goals stretching many years into the future.

"I would like to make commander and captain," Williams says. "I would like to be the commanding officer of a Naval Mobile Construction Battalion (NMCB), I would like to be the chief staff officer for one of the regiments, a commanding officer of one of the school's commands, and then chief staff officer for Commander Naval Construction Battalions, U.S. Pacific Fleet (COMCBPAC).

"I feel very positive that these things are going to happen. No one is going to give it to me, and I wouldn't expect anyone to. But I think if you work for it and work hard, the recognition will be given. If you do the job you are supposed to do, the recognition will be there."

The benefits of hard work became evident to Williams early in his career. Ironically, he learned this valuable lesson through the short-sighted actions of a narrow-minded chief petty officer.

"I went to NMCB-7 for my first duty station right after "A" school," Williams explained. "On my first day I walked into the company office and my chief said, 'You don't belong here, you belong in the wardroom.' Well, I knew I wasn't an officer so I figured he wanted me to go work in the wardroom as a steward. But when I went to the wardroom the company commander saw me and said, 'You're a UT striker, you belong over there (in the utilities shop).' So back I went. The chief didn't want me there, but he didn't have any choice, he had to take me.

"So he immediately began giving me so-called duties while everyone else was on liberty. This went on for about six months. But I learned an awful lot about the UT rate just by being in that situation. The chief didn't recognize the fact he was actually helping me and not hurting me."

Williams says bigotry was commonplace in the early stages of his career, but is pleased to know such behavior is not tolerated in today's Navy. "That kind of treatment was routine for me at the time," he said. "But those things happened back then. Today a guy's

Continued on next page

All he needed to succeed was a chance.

own merits are the name of the game."

Following his tour with NMCB-7, which was deployed to the British West Indies, Williams joined NMCB-8 for a six-month deployment to Antarctica. In addition to installing and using the first flush toilet at the South Pole, Williams used his time on the "ice" to map out his future.

Shortly after his return to the United States, Williams faced the end of his first enlistment. While re-enlistment was a certainty, Williams did have serious doubts about the validity of his initial career objectives. "I was hoping to make second class by 20 years and retire," he said. "Well, I had made second class in a year and a half. Something seemed wrong to me. I knew I had to set new goals."

His new goals included making chief petty officer, master chief petty officer, chief warrant officer, and then being commissioned a limited duty officer. Williams was confident he could reach every milestone. His friends thought he had left more than a new flush toilet at the South Pole. They thought he had lost his mind.

"I talked with some of my friends about my goals and they said, 'Look around you, it's just not possible. Don't tell us you are going to do all that.' I told them I would do it."

Over the course of many years and duty stations Williams did indeed achieve every goal he had set for himself. None of it was easy.

Williams has achieved every goal he's set. "It wasn't easy," he said.

He says his success would not have been possible if not for the people who helped him along the way.

"You can't do it alone," Williams said. "I had an awful lot of help along the way. There were a lot of people that opened doors for me. You can work like a son-of-a-gun but you need other people to help you achieve your goals.

"There have been many CEC officers who have taken time out of their daily schedules to work with me. That has paid its dividends."

The lieutenant commander will never forget the people that supported him. Now he finds himself in a position where he can return the favor and vows to be there for anyone wishing to follow in his footsteps. His advice to those men and women is simple.

"Be the best you can be. Volunteer for everything and learn your boss' job as well as he knows it so you can step in when he's not there. To do these things you are going to have to make sacrifices. You are going to sacrifice your liberty.

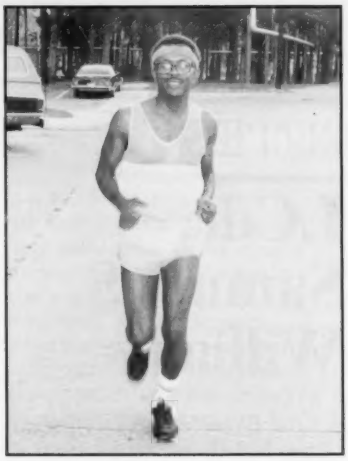
"You have to be competitive—very competitive if you want to stand out.

"You have to have the respect of the troops, both up and down. You have to be able to accept criticism, accept that you made a mistake and regroup. You have to be able to laugh at yourself.

"You have to be versatile. Learn the other jobs in your division. Set goals and when those goals are reached, set new goals. All those things have an impact on a prosperous Navy career."

Williams quickly adds that a successful Navy career does not have to span 31 or even 20 years. "You can have a successful four years in the Navy and the training you receive will carry you for the rest of your life."

For Williams, success is directly linked to initiative and hard work. He has little patience for people who tread water until their enlistment is over. "Night and day does not change automatically," he said. "What you are habitually doing in the Navy is going to be carried with you. If you don't strive here you are not going to strive there."



Williams is an avid runner, often logging as many as 10 miles a day.

Williams acknowledges a career in the military is not for everyone, but believes everyone "owes at least two years" of military service to their country. "To live and be supported by this country—and there's no doubt this is the greatest country—you owe something in return."

This philosophy has been prevalent in the Williams' home for the past 31 years. Williams and his wife Pearl have four sons and one daughter. All four boys are in the service, three in the Navy and one in the Army. Their daughter Sandra, age four, "is leaning towards a career in the Civil Engineer Corps," her father notes with a smile.

There was never any doubt the Williams children would opt for military service. "It was an unspoken, understood factor—they were going to be in the military," Williams said. "I would have been highly surprised if they had not joined. They are all making it a career."

The only question remaining in the Williams household now is who will be the first to retire. There's a strong possibility it won't be Dad.

He has too much to do yet—too many goals still to achieve. □

Antarctica assignment — it's not just a job!

By LCDR PETE CHECK
Director, Facilities Management
CECOS, Port Hueneme, Calif.

It's not just a job . . .

An old cliche, overused and misapplied, yes—but not when applied to duty in Antarctica. The first thoughts of dark, isolated, and the coldest of cold are probably the very things that have enabled this continent to remain unpolluted, pristine, and remarkably beautiful. Yet for those few Civil Engineer Corps (CEC) officers who recognize this as an unequaled opportunity and the adventure of a lifetime, a truly astounding experience awaits them.

The CEC team is headed by the public works officer (a lieutenant commander) and seconded by an assistant public works officer (a lieutenant). They are supported by the maintenance/utilities officer (a lieutenant junior grade) and the engineering officer (an ensign). For the public works officer/assistant public works officer, a rare chance to supervise an officer from another service occurs, as the transportation division is led by a U.S. Army captain, Transportation Corps. Certainly not to be forgotten is the winter-over officer in charge, a CEC lieutenant commander or lieutenant.

The stalwart group of hearty individuals who really make the Antarctic tour successful and memorable for the CEC officers are the Seabees, and fleet "snipes," some 100 strong. Both male and female, these individuals represent all of the OF-13 ratings, plus MM, BT, and MR, from E-9 to E-3. Their duties range from building annual ice runways to pioneering vehicular trails across uncharted sea ice; from producing McMurdo Station's fresh water and the domestic hot water in the main berthing building to performing major renovations in offices and berthing quarters.

Often the "routine" work of repairing frozen water and sewage lines, jump-starting vehicles, and surveying runway coordinates is performed in temperatures below −20 degrees F. and/or winds of over 30 knots. Sound unappealing? Only if you're an individual who lives life without challenges and a desire to excel.

Besides the obvious, other differences that make facilities management in Antarctica unique include working side by side and often supporting the National Science Foundation's prime "BOS" contractor. Performing parallel functions, this contractor is a daily companion at transportation's dispatch window, or in sharing the limited resources of equipment and materials.

Friendly competition and rivalry do exist, but both groups have learned that they are there to support the same mission. Why two organizations with similar taskings exist in the same program is a question best left to those in Washington. Let it suffice to say that while the CEC officer is coordinating with the contractor to maintain the most efficient organization between the two groups, he is also spurring on the Seabees to produce higher quality work and the traditional "can-do" spirit. Contrary to preconceived notions, the relationship works and it works well at all levels.

Second, everyone knows that Seabees can build runways, but how many know that a few specially experienced "Bees" build runways on annual sea ice that is only five feet thick, deflects as much as several inches under the weight of parked aircraft, is floating above over 600 fathoms of water, and breaks up and goes to sea after only two and a half months of use? By the way, this airfield complex, with a runway minimum size of 10,000′ x 300′, is larger than Chicago's O'Hare International Airport.

The differences don't stop at the runway, for a third unique tasking is the construction and maintenance of a floating sea ice pier. Some 20 to 25 feet thick, this pier is nothing more than a huge ice cube intertwined with one-inch-diameter cable used as reinforcing. The 525′ x 300′ floating pier has a three- to-five-year lifespan, but each year additional "layers" of ice are added to the top to heal any cracks and to repair the wearing surface. How critical is this job?

The pier allows the annual fuel and resupply ships (one each) to tie up alongside and discharge an entire year's supply of fuel, food, and other materials, without which the U.S. Antarctic program could not continue.

The Seabees also maintain many thousands of feet of insulated pipe used to distribute McMurdo's potable water and sewage. This pipe carries heat tape to prevent freezing, and though monitored and alarmed for any failures, Murphy's law holds that the heat tape will fail and the pipes freeze in the middle of a howling storm in total darkness, when the outside temperatures are well below −30 degrees F.

Recent years have challenged the CEC officers and Seabees with the design, prefab construction, transporting, and erection of a "semi-permanent" helicopter refueling facility at Marble Point. This was accomplished in less than four months, including the transporting of the prefab modules across 120 miles of annual sea ice.

Construction isn't the only area of concern for public works either. One year saw the rescue of an LC-130 aircraft which had fallen into a crevice in a remote glacial field camp. Then there are the yearly challenges of bridging between the shoreline and the floating ice sheet leading to the ice runway. Forces of deteriorating ice, tidal action, and stress cracks add to the required considerations.

Remanufacturing of 1957 vintage low ground pressure (LGP) Caterpillar D-8 bulldozers is alive and well in Antarctica. This program saves the government between $500,000 and $900,000 per machine in lieu of new procurement while extending the equipment lives from five to eight years.

The list of unusual and challenging tasks seems to have no end. The rewards likewise appear limitless, from visiting Antarctica to transiting through beautiful New Zealand, from learning to live in harmony with nature's most severe climate to working with the most dedicated, selfless, "can-do" groups of Seabees in the Navy.

. . . It's an awesome adventure.

BEST is best for PW functions

By DONALD S. ALLEN, II
BEST Project Manager

Need for Automation of Public Works Functions

Proper execution of public works functions requires objective planning, timely decisions, accurate information, and effective information feedback. In short, execution of public works functions requires good management systems if customer requirements are to be met in a timely and effective fashion.

Several successful NAVFAC-sponsored systems supporting management of public works functions have been developed over the years, installed at activities worldwide, and have proved to be effective as attested by their use by other federal agencies, state and local governments, and many private firms. These systems have their roots in the 1950s and reflect the office technology then available: paper-intensive support by clerical help, and systems-supported production technologies that were easy to manage, plan for, and coordinate.

Today, those same systems support public works functions in an environment where clerical support is limited; workloads have increased, multiplying the number of pieces of paper generated; and production technologies are dynamic requiring specialized skills, greater coordination, and greater oversight for proper application.

Public works management systems developed in the 50s and early 60s were successful at the time they were developed. Current conditions render them paper-bound, nonresponsive, and ineffective. The need for effective public works management systems is as great, if not greater, than any time in the past. The concepts embodied in established systems are still valid. The challenge that we are faced with is to revamp public works management and support it with today's technology.

One of the tools that is being provided is the Base Engineering Support, Technical (BEST) System. BEST provides Navy shore commands an effective automated public works support system. With it public works support can be provided in a timely and effective fashion, fully supporting customer requirements.

History

Efforts to automate public works departments (PWDs) started in the late 1960s on what became known as Public Works Department Management Systems (PWD/MS). For a variety of reasons including mainframe computer technology then available, lack of standardization in computers among naval activities, low priority for public works applications by central data processing centers, and attempts to integrate PWD/MS with nonstandard financial and material systems, PWD/MS never achieved desired results.

In 1979 the Naval Facilities Engineering Command (NAVFAC) was successful in obtaining Productivity Enhancement Capital Investment (PECI) funds to develop a "stand-alone" public works automated system. By 1981, BEST design concepts were established. Early success demonstrated at CBC Port Hueneme and NAS Miramar, prototype test sites for development of the maintenance and transportation applications respectively, resulted in approval to procure equipment and install BEST systems Navy-wide. In 1983 a competitive solicitation resulted in the selection of Honeywell equipment. The Chief of Naval Operations (CNO), recognizing the potential for costly duplicative efforts and the overriding need for automation of public works functions, supported NAVFAC's efforts and designated BEST as the Navy's standard public works automated system.

What is BEST?

Public works management guidance provided by NAVFAC over the years has proved to be effective, but with growing workload and reduction in staffing, manual systems have become more difficult to properly execute. The basic design criteria for BEST was to help the public works officer (PWO), his/her managers, and staff perform their jobs more effectively. Applications automate existing manual systems which reduce paper-intensive work requirements, improve the accessibility of data, and provide the ability for comprehensive real-time data analysis.

BEST is an interactive, menu-driven system that has minimal impact upon existing activity practices and personnel. In fact, many portions of BEST, such as the job order numbering system, scheduling criteria, local reports, etc., must be defined by the user; other fields have been provided to allow activities the opportunity to maintain local data they feel is important.

BEST uses multiple suites of equipment to provide the user maximum control over the equipment. Three subsystems (i.e., suites of equipment) are available: maintenance and utilities, transportation, and family housing. Within each subsystem there are several application modules. These application modules are also capable of operating independently, however, some integration is encouraged to provide features such as the sharing of common files and transferring of information between applications.

BEST applications run on the Honeywell DPS 6 family of minicomputers. The maintenance and utilities subsystem is typically supported by a DPS 6/75, the largest of the three suites of equipment; the transportation submodule is supported by a DPS 6/45; and family housing runs on the smallest piece of BEST equipment, a DPS 6/40. Equipment complexity is such that ADP personnel are not required. System administrators, selected from within the public works organization, are trained to operate and manage these systems.

The BEST report writer provides the ability to draw data from multiple files within a subsystem. Data can be organized and sorted by user-defined requirements and mathematical operations applied. The BEST report

writer provides complete report preparation flexibility and is one of the key assets of BEST. More advanced users find that the Honeywell interactive query facility provides added control over the files.

BEST Application Modules

Facilities Management Engineering

The Facilities Management Engineering Division is supported by four application modules: Emergency/Service (E/S), Work Input Control (WIC), Facilities Engineering Job Estimate (FEJE), and Shore Facilities Inspection (SFI). These modules have been installed at field activities. A revised E/S module was provided to the field in July. WIC, FEJE, and SFI are currently under revision and will be provided as a package by January 1987. These revised modules include many of the changes/enhancements proposed by users.

The **E/S module** supports E/S management functions providing rapid work request processing and data retrieval ability. It also performs statistical analysis on E/S work orders, facilitates the use of Engineered Performance Standards (EPS), and generates management reports on demand.

The **WIC module** performs clerical operations associated with work reception and control as described in the MO-321. It provides control of labor resources as well as scheduling and monitoring of all work processed by the facilities management engineering division (formally the maintenance control division). This is done through four submodules: work identification and status, shop load planning, operating plan, and contract status. The WIC module interfaces with FEJE to provide control of work schedules for planning and estimating.

The **SFI module** performs clerical functions and operations associated with the management of the Control Inspections (CI) Program for facilities and the Preventive Maintenance Inspection (PMI) Program for installed dynamic equipment. Procedures are described in MO-322, Vol. I. Inventory, inspection frequencies, and standard labor hours are maintained for each submodule. Each submodule provides inspection schedules, identifies resource requirements, generates work orders, and provides the ability to monitor compliance with established schedules. SFI interfaces with FEJE for development of standard labor hours required for PMI work orders.

The **FEJE module** provides automation of the work estimation process using EPS procedures, NAVFAC P-700 series. Submodules provide both scooping and detailed estimates. FEJE was designed primarily to estimate jobs that are to be accomplished by in-house personnel, but can also serve as a tool to estimate work accomplished by contract. FEJE operates successfully independent of other BEST modules but the full range of benefits is achieved when it is interfaced with WIC and SFI Modules.

Utilities

The utilities division is supported by a single module which automates preparation of bills, the Utility Cost Analysis Report (UCAR) feeder report, and Defense Energy Information System (DEIS) submissions as described in NAVFAC P-96. Using UCAR data the module will provide trend data on costs and production, forecast consumption and cost data for budgeting, compare cost and efficiencies against established targets, and allocate energy consumption for DEIS-II reporting requirements. The utilities module will be installed at two "beta" test sites this summer. Barring unforeseen problems, the module will be available for general installation early in fiscal year 1987.

Transportation

The transportation division is supported by four modules. These modules implement administrative procedures described in the P-300. Modules supporting administration and Fuel Automated Data System (FADS) functions have been developed and released for general use. Development of the maintenance and operations modules are now under contract along with revision of the two available modules. Anticipated release is in fiscal year 1987.

The **administrative submodule** supports recordkeeping and reporting requirements and provides summary data on equipment utilization and cost. Specific data is drawn from the other three submodules.

The **operations submodule** maintains customer assignment files and equipment utilization and history files. Fuel consumption and mileage data is provided through interface with the FADS submodule.

The **maintenance submodule** supports preventive maintenance clerical requirements, management of shop repair orders (SROs), and computation of equipment utilization downtime statistics. Historical data files on vehicle maintenance are also maintained.

FADS, an integral part of the transportation module, is used to control fuel issues and to collect vehicle utilization data. This system, installed at the fuel pump, allows rapid periodic updating of other submodule data files for vehicle utilization data. For NAVSUP purposes, FADS improves inventory control and tracking fuel transactions.

Family Housing

The family housing subsystem automates portions of guidance provided in NAVFAC P-930 and consists of three modules: on-base housing waiting list, on-base housing occupancy, and off-base housing referral. Family housing is generally administered in two major functional areas—personnel support and facilities management. Personnel support tasks deal primarily with the assignment of personnel to Navy housing or suitable housing in the civilian community. All three modules support this function. Facilities management tasks are those associated with operation and maintenance of property on the family housing property account. Maintenance performed on housing units is normally scheduled during periods of vacancy. BEST supports this function, using occupancy data and projections of vacancies. Family housing applications are fully developed and installed.

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Installation of BEST

Installation of BEST systems at shore installations began late in 1984 and will be completed in May 1987. A total of 165 systems will be installed at 76 shore installations (75 supporting maintenance and utilities, 53 for transportation, and 37 for family housing). Maintaining this challenging schedule has proved to be a full-time job requiring dedicated effort. NAVFAC Engineering Field Divisions (EFDs) were tasked to install BEST at all locations. To handle this tasking, EFDs designated staff members as installation managers (IMs) who have "cradle to grave" responsibilities for assigned activities. The IM is the activity's point of contact for installing BEST equipment, training functional users, and assisting in resolving problems.

Installation of BEST starts with the pre-installation visit conducted by the IM. This visit, conducted as much as a year in advance, introduces future users to BEST. A site preparation inspection is conducted by the IM just prior to the shipment of equipment. This inspection ensures that adequate space has been prepared for the equipment and that appropriate power is available. Actual equipment delivery and installation takes about a week.

The BEST software is loaded and fully checked out prior to the IM's acceptance of the equipment. Following installation, the IM coordinates with other EFD personnel and conducts in-depth user training. This training, depending upon the function, lasts from one to three weeks.

The final event, 60 to 90 days after equipment installation, is the post-installation visit. During this visit the IM reviews the activity's use of BEST, evaluates the skills that the system administrators and system users have developed, and in general, reviews overall conditions.

The results of this visit are provided in a written report to the activity commanding officer and public works officer. Barring any significant concerns, transfer of equipment ownership to the activity occurs at this time.

Installing BEST is more than just installing equipment; it is installing a system, a new and better way to do business. Each installation takes much effort on both the IM's and the activity's part. As with anything new, there is often reluctance to change, and there are always problems unique to the location.

Successful installation of BEST systems results from hard work, acceptance of change, and a desire by the users to make it work. Key elements that directly affect the success of BEST are management commitment, established management systems, trained and responsible system administrators, and responsive IM support.

Results

The success of BEST at activities has varied from a limited to a smashing success. Almost every installation was undertaken under a cloud of uncertainty. Many activities had microcomputer or older mainframe applications supporting parts of those functions BEST supports, some activities were understaffed and hadn't the time to learn a new system, and in some instances users were just skeptical.

Initial uncertainties were quickly overcome with on-site training and users gaining familiarity with BEST applications. As skills developed, many activities quickly adapted BEST to meet *their* unique requirements through a combination of creative use of BEST applications and some modification of local practices.

BEST has demonstrated its ability to provide real dollar savings, savings in the form of productivity gains (i.e., more work being performed with existing resources, improved quality of work, new reporting ability, improved quality of data, etc.). The maintenance subsystem provides the major portion of savings through improved quality of job plans and better work scheduling. Dollar savings for family housing are realized through significant reduction in clerical efforts with similar savings expected for utilities. The transportation subsystem will provide sizable savings, principally in reduced vehicle maintenance costs and improved fleet utilization.

BEST also provides intangible savings that enhance overall public works performance. Improved quality and timeliness of management information help identify trouble spots, increase level of customer support, and help to control the execution of work. Improved management of family housing data results in better support of service members. Increased vehicle availability will reduce time customers wait for vehicles, particularly ships in port. The intangible savings provided by BEST may provide a more significant and lasting impact than the tangible benefits.

Support of BEST

The BEST project has proved to be a success. Final development of applications will be completed and all equipment installed this coming year. The development of new and or enhanced applications is now on the planning horizon. To maintain this initial success it is important that timely and responsive support be provided to BEST users.

NAVFAC EFDs are the visible forefront of this support. They sponsor BEST user group meetings where users can share experiences and ideas. Newsletters are another visible service provided by EFDs. On a periodic basis (normally quarterly), newsletters are published reporting newly released software, new applications, innovative applications developed by users, review of the last users group meeting, etc. Civil Engineer Support Office (CESO) provides essential but not so visible support.

In addition to applications development, CESO provides technical support to the EFDs to solve software and equipment problems encountered by users. As new releases of BEST applications are developed, CESO revises the user guides and other support documentation and provides complete packages to the field.

In the more distant background are the functional proponents at NAVFAC. Proponents work closely with CESO and EFDs to review the use of BEST applications and to determine where and how better support can be

provided. As new needs are identified, functional proponents develop justifications for funding and provide taskings to CESO.

All of the above are useless without the effort and skills of the SA. The selection and training of the *right* person to serve as an SA is essential to the success of BEST. A person with an ADP background is not required, but someone with a strong desire to work with BEST and a knowledge of the function(s) supported helps to ensure success. The SA is the person who keeps the equipment running, makes the daily backups, assists the users in maintaining their files, and who performs the daily, weekly, etc., file maintenance. The SA is the activity's key to ensure timely and responsive support to the user.

NAVFAC has been providing the Navy shore community public works guidance for many years. In the past, large, well-staffed departments could effectively implement this guidance using manual efforts. In recent years, functions requiring extensive manual efforts have become less responsive. BEST provides automation of many of these functions, providing that long-needed link between guidance and application.

In the past six years BEST has progressed from an idea to a reality achieving, if not exceeding, expectations. BEST is still in its infancy, and as with any new system, has not been fully perfected. As activities use BEST applications and suggest improvements, BEST will grow to provide ever increasing support to all users. □

Facilities Management System

History, shortcomings and recent changes

By D. I. WILLIAMS
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NAVFAC

This year marks the 33rd anniversary of the Navy's Facilities Management System as we know it today. This system has been admired by the private sector and has been widely adopted. Unfortunately, the shore establishment's use of the system has not always lived up to expectations. The following paragraphs will explore the history of the program, discuss shortcomings, and present the recent changes that should improve its use.

The history of facilities management can be divided into four major time periods: creation, the age of the single executor, Dark Ages, and Renaissance.

The creation period started in the mid-1950s. In 1953 the beginnings of the program started. A manual entitled *Public Works Department Management* was issued in 1956 and in 1957 the *Organization and Functions for a Public Works Department* was issued. The first system had basically the same principles as today, but did not contain the shop load plans and related documentation such as the job requirements and status charts. These improvements were not added until the early 1960s.

This changed the focus to better short- and long-range planning. Implementation of the concepts were very spotty as a result of the difficulty in gaining control of total requirements, and the lack of appreciation of many public works managers on the value of planning. As often occurs today, these managers were getting lost in the pressure of day-to-day crises and found the paperwork aspects oppressive.

While all of this was proceeding Engineered Performance Standards (EPS) were being developed for the shop forces and implementation in the field was being accomplished by the Engineering Field Divisions (EFDs). One of the major considerations discussed at the beginning of EPS was the difficulty in developing a standard for every possible combination of work and level of deterioration. For example, pipe could be in an accessible location in fairly good shape as far as disassembly is concerned or in an awkward location with rusted fittings.

The concept of spreadsheets and work content comparison developed from this concern. Individual manuals were assigned to EFDs and for those unfamililar with that era there were 13 EFDs. This caused a large problem since so much of the basic data of EPS was interrelated. Any change to a formula rippled through many manuals and many EFDs.

As early as 1965 there was talk about tri-service efforts for standards but a decade would pass before agreement could be reached. Finally, in the late 1970s, a group was established within LANTDIV called the Naval Industrial Engineering Center (NIEC) to maintain EPS and to focus on the OSD coordination requirements.

Other productivity related efforts were pursued. One was a study of shop productivity based on work sampling. These studies identified major deficiencies at many locations including readings in the high 30s and low 40s compared to an achievable figure of the mid 60s.

These studies identified that many of the reasons for low productivity were related to management decisions. Things such as the decision to allow workers to return to the shops for lunch, inadequate transportation to get the worker to the job site, not having work available in mid-afternoon when jobs were complete, and making trips back to the shop to get materials and equipment not properly identified in the job plan had major impacts on productivity. Twenty years later we are accomplishing studies with similar results.

The age of the single executor was considered the golden age by many in the NAVFAC public works busi-

ness. There were a few years when the frustrations of being in a staff position with no power of enforcement appeared to be over. This period marked an attempt to use all of our technical and management knowledge to spread the resources fairly to all shore activities.

Pressure to implement the management programs was applied and the model public works program was born. This program for a few brief years did generate interest and competition among public works departments (PWDs). Key elements were developed and PWDs were rated numerically against the standards for those elements.

It was also during this time frame that the management assistance team visits were created, the concept being that a team of experts would evaluate a PWD from top to bottom and identify items to be corrected to improve performance.

This concept also disappeared after the single executor function ceased. In recent years Facilities Evaluation and Assistance Team (FEAT) visits cover some of the same items except the thrust is different in that FEAT visits are geared to the needs of the major claimant as well as the PWD. Late in the 1960s the Navy reorganized and management along the command chain emerged as the primary way of doing business. This principle remains today as the dominant way of accomplishing Navy mission. NAVFAC once again returned to the ranks of the command advisor and activity assistor except for the few PWDs actually owned by NAVFAC and the nine PWCs.

The enthusiasm generated by single executor quickly turned to a retreat from the basic responsibilities to support the shore establishment in real property matters. Programs were de-emphasized, concern was directed to energy and environmental problems, and the then maintenance divisions of the EFDs started to become an endangered species with total staffing dropping to less than 100 personnel at all six EFDs. Command emphasis was directed to construction and Vietnam was the area of highest concern. This decline continued through most of the 1970s.

In the late 1970s a rebirth of facilities concerns started on many fronts. Admiral Jortberg, while OP-44, noticed that the Navy's preoccupation with operation problems resulting from post-Vietnam was resulting in a substantial deterioration in the plant causing the backlog of maintenance and repair to grow at a rapid rate.

He displayed the backlog by investment categories which helped to generate support for increasing resources to reduce the backlog in key mission areas. At the same time NAVFAC was concerned that the Civil Engineer Corps officers at PWDs were not being fully supported and were being left to fight huge problems singlehandedly. Also, life in the field was being complicated by energy reductions and environmental considerations.

> **"Late in the 1960s, the Navy reorganized, and management along the command chain emerged as the primary way of doing business."**

The commercial activities program was again picking up steam threatening public works as we knew it. Large base operating contracts were being talked about since the one at Bangor appeared to be a large success. During the lean years, inspection staffs had been cut or eliminated and the annual inspection summary no longer accurately represented facility condition.

During this time period, three major efforts were conducted. One was the ad hoc study of the maintenance function. This study evaluated the functions, recommended changes, focused on the roles of maintenance, and recommended resource changes. Secondly, NAVFAC was reorganized to establish a maintenance, and recommended resource changes. Secondly, NAVFAC was ly, shortly thereafter, an evaluation was made of why the Facilities Management Program had not achieved better results over the 27 years since development. This review has triggered most of the current initiatives previously mentioned.

Before considering the problems, consider the basic principles of the program.

a. Maintenance and repair deficiencies should be primarily identified through a formalized inspection system.

b. Inspection-generated work and customer work are prioritized and planned through annual plans and short- and long-range monthly plans called shop load plans.

c. A job estimating system based on standards is used. The standards are called Engineered Performance Standards and are mostly based on motion time method times.

d. A formalized scheduling system is used for the shop and an independent component monitors contract performance.

e. Reported times charged against work orders are accumulated, compared against estimates, and variances analyzed.

NAVFAC has aggressively pursued the efficient and effective use of resources directed to public works over much of the 33 years since the program's development. NAVFAC has been recognized as a leader for these endeavors and some program elements such as EPS have gained wide acceptance and use in the private sector. Although limited improvements were made, studies identified that additional substantial improvements could still be expected. One area of high concern was that many of the principles touted by the experts were not embraced with the same commitment at the execution level. Several reasons the system was not effectively utilized were:

a. The facilities management system requires management-oriented personnel with management engineering skills, and traditionally these positions were filled with personnel oriented toward work execution skills.

b. Most PWDs are large by industrial standards. There are a substantial number of facilities at these complexes. This generates many requirements, substantial paperwork, and a large follow-up

requirement. This is difficult to accomplish in a manual mode; therefore, improvements will only be possible through simplified procedures or through automation.

c. Although the system implied emphasis for long-range planning and analysis, no specific organizational component was established to foster these philosophies.

d. To become proficient in facilities management one must not only read the principles but also must have an opportunity to learn the practical aspects of the programs. We did not have an organizational framework to provide experience. Many of our facilities managers learned crisis management long before facilities management and stayed in that mode.

e. The previous system overemphasized control of shop execution to achieve savings. While it is possible to save from 20 to 30 percent by improving execution, substantial dollars can be wasted by poor timing of a repair solution or the wrong repair solution, replacing a pier deck when the piling is about to fail.

f. Condition assessment is the key to good inspection and ultimately to workload planning. Condition assessment is not performed accurately at most activities.

What are we doing about it? The following are major course corrections. The old maintenance control organization has been redesigned to add new skills and to increase emphasis on key functions. The old organization was largely work reception, planning, and estimating with an occasional staff position for shop loading. The new organization has a new title—facilities management engineering with two major subdivisions—work management and work generation.

The work management function covers work reception, short- and long-range planning, personnel, budgeting and requirements analysis, and analysis and productivity. The work generation function includes planning and estimating, inspection, and material identification and ordering.

Material functions have moved from the shops. The shops are now responsible for getting materials to the job site, handling pre-expended bin requirements, and work execution. The new organization permits a career path and allows a person or group to focus on the major program area.

To solve the problem of workload, status information and data requirements, a comprehensive automated management system geared to minicomputers was developed. The automation of the public works function has been an ambitious endeavor. This concept was long desired but not possible until a productivity enhancement project was approved at the Office of Secretary of Defense level. This project allows us to competitively procure uniform hardware for 80 of the largest PWDs.

This system, Base Engineering Support, Technical (BEST) is designed as a simple, flexible, interactive ADP management system to be operated and controlled by PWD personnel. It will enhance the productivity of Navy Public Works personnel through automation of standard management procedures. Comprised of standard user-friendly software and minicomputer equipment, the system consists of independent subsystems for maintenance and utilities, transportation, and family housing. Equipment for each subsystem consists of a central processing unit (CPU), storage devices, cathode ray tube (CRT) work stations, and printers. Size of CPU and storage devices, and number of work stations and printers will vary among activities.

A typical installation receiving all modules would have three CPUs, about seventeen CRTs, eight printers, and three disk drives. Three CPUs were used for the following reasons.

- Provide a computer small enough for simple operation yet large enough for multiple programs and users
- Give major functional groups control of their system
- Minimize telecommunications when these groups are geographically separated.

There are seven modules in BEST: housing, transportation, utilities, emergency service, work input control, inspection, facilities engineering, and job estimating.

Another of the major problems was the lack of good condition assessment. This came in several forms—problems within the control of an activity such as not having adequate levels of personnel on board and the fact that some types of facility inspection required technical capabilities not normally available in an activities inspection staff. For the latter reason, the specialized inspection program was developed. The program is geared to those things not readily visible with the naked eye.

> **"New organization permits a career path and allows a person or group to focus on the major problem area."**

Originally it was to cover roofing, underwater inspections, utilities, and pavements. As the result of funding cuts it has only covered roofing and underwater inspections. The goal is to integrate a specialized inspection with an activity inspection to develop an accurate condition assessment. In the roofing program we utilize devices such as the nuclear moisture meter to determine problem areas. In the case of underwater inspections we utilize divers and many types of inspection techniques to identify deterioration. The roofing program is executed by each engineering field division to identify deterioration.

The interest in improving public works support is high. Many studies are underway to focus on improvements. The initiatives mentioned above should help public works managers upgrade management of the organization as well as the service to customers. With proper interest the potential for improvement is high at the current time. Perhaps a report on the 40th anniversary of the program will document that large improvements have been made. □

situation report

Spray-applied asbestos insulation has received extensive public scrutiny and federal oversight since its initial ban in 1975. The Environmental Protection Agency has more recently proposed phasing out numerous other asbestos-containing materials (i.e., roofing felts, wallboard, floor tiles, etc.) for new construction. In light of these proposed regulations, it is important to reiterate current Navy policy on the use of asbestos-containing material.

Recognizing the potential future costs involved with asbestos use, OPNAVINST 6260.1A, *Control of Asbestos Exposures,* dated August 8, 1978, initially specifies the use of *substitute materials,* where acceptable after testing, for asbestos products. This policy was reinforced in OPNAVINST 5100.23B, dated August 31, 1983, which states, "wherever possible, asbestos-free *substitute materials,* tested and approved under the technical management of the cognizant headquarters activity, shall be used in place of asbestos-containing materials."

In May 1986 the Construction Battalion Center, Davisville, R.I., awarded the first contract for containers for the Naval Construction Force (NCF). The contract value was just under $11 million. The contract includes: 8′ x 8′ x 20′ containers and 8′ x 8′ x 6-2/3′ (TRICON) containers. This contract will outfit approximately 40 percent of the NCF. The containers will enable the NCF to shift from using wooden mount-out boxes, which require break-bulk shipping, to the more common containers.

The containers will include shelving and drawers as well as lighting and ventilation. The use of containers will further enhance the readiness of the NCF by allowing use of the more abundant container ships instead of break-bulk ships and by reducing the handling time. Once at their destination Seabees will transport containers to their deployment site.

A total of about 130 containers will be used by each NMCB. Follow-on contracts will provide containers for remaining units. In all, 29 NMCBs/RNMCBs, four RNCFSUs, eight RNCRs, and one RNCB will receive containers. The containerization program is being carried out by the Civil Engineer Support Office. The first containers were expected in late 1986.

The Seabees have traditionally been assigned to provide water wells required to support Marine units. Planning is underway to procure sufficient well-drilling equipment and development kits to fulfill anticipated OPLAN requirements.

For the past several years Seabees have been expanding their well-drilling training by participating in exercises in Central America and the Middle East. The Naval Construction Training Center, Port Hueneme, Calif., has DOD's only formal well-drilling school. Development of a well-drilling rig that is air transportable by C-130 aircraft, can drill to 1,500 feet, and be operated by a two-man crew is underway by the Naval Civil Engineering Laboratory.

The Navy's Hazardous Waste Minimization program is gathering momentum. In October 1985 the Chief of Naval Operations (CNO) initiated a program for reducing the amount of hazardous waste that the Navy generates by tighter hazardous material control, process improvements, material substitution, recycling, and treatment. The benefits include lower disposal costs today and avoiding future liabilities.

Federal law makes the generator liable for future problems—if a hazardous waste landfill leaks or a disposal contractor spills waste, the generator might have to pay clean-up costs. In fiscal year 1986, the Navy started several actions to support CNO's call for a waste minimization program. The Naval Civil Engineering Laboratory (NCEL) is completing a study of minimization techniques we can use.

The Naval Energy and Environmental Support Activity (NEESA) has formed a technology transfer team to transition processes from the lab to the Navy. In fiscal year 1986, the team is helping several activities install a new hard-chrome plating system (developed by NCEL) and plastic media paint stripping (developed by private industry and the Air Force). The Engineering Field Divisions (EFDs) and NEESA can also help activities implement the mandatory Used Solvent Elimination program.

Other efforts focus on better hazardous material control, both at shore activities and afloat. In fiscal year 1987, NAVFAC has $10M earmarked for this effort. We will be using these funds for facility improvements, equipment, and studies. Interested activities should contact their EFD for further details on getting technical help and applying for funds.

A recent PCB transformer fire in a NARF Norfolk industrial building contaminated critical aircraft equipment and spare parts as well as 300,000 square feet in two buildings. Contaminants included PCBs, dioxins, and dibenzofurans. High clean-up costs (more than $5M), significant loss of productivity, and severe mission impact resulted. A PCB capacitor exploded at NAS Mem-

situation report

phis causing less costly but significant environmental damage.

To prevent further incidents, CNO tasked major claimants with identifying as candidates for replacement any PCB equipment in poor condition, or with potential for serious health, environmental or mission impact (financial or operational). CNO distributed a PCB risk assessment to assist in this task. Claimants must give high priority to funding replacements.

At CNO direction, NAVFAC, NAVAIR, and CNET are working on the following:

- Technical lessons learned report dealing with response actions, coordinating with regulatory agencies, and factors that caused smoke spread. (NAVAIR and CNET)
- Lessons learned report on contracting problems associated with the NARF contamination assessment and cleanup. (NAVFAC)
- Evaluate short-range means to reduce likelihood of PCB transformer and capacitor fires/explosions and reduce smoke spread if fires occur. (NAVFAC)
- Update a PCB management guidance document. (NAVFAC)
- Evaluate pros and cons of Navy policy requiring retrofill/replacement of all PCB transformers. (NAVFAC)
- Review methods to determine capacitor oil composition to aid activities in developing an accurate PCB inventory. (NAVFAC)

Information from these initiatives will be widely disseminated to assist activities in PCB management.

The Chief of Naval Operations recently picked NAS Sigonella, Italy, as the fifth deployment site for the Naval Mobile Construction Battalions (NMCBs). Sigonella has been a detachment site for Seabees for several years. The first battalion to deploy to Sigonella is NMCB-4, in November 1986. Operational control of the Sigonella battalion, as well as the Rota battalion site, will change from the Commander, U.S. Naval Forces Europe to the Commander, Sixth Fleet in early 1987.

comments/questions

Reader defends process of proprietary specs

I read with intense interest the totally misleading article written by Mr. Petrone of Northern Division about "Proprietary Specifications" (Summer issue 1986, page 27). Mr. Petrone has made some false assumptions about the process. NAVFAC does not write specs the way he describes.

If he can find a single proprietary specification among the more than 300 NAVFAC Guide Specs, I will personally have it revised. If he will identify those design engineers he says are defying the FAR and NAVFACENGCOM guidance, I am sure their supervisor will note those facts on the next performance rating.

NAVFACENGCOM spends a lot of money each year to ensure that we have the best specification system around. We have literally hundreds of dedicated hard-working design engineers who *are* doing their jobs correctly. Someone must be doing something right since NAVFAC has the predominant position in preparing specifications for the entire federal government to use.

Mr. Petrone has done everyone in NAVFAC a disservice with his article. The examples he cites are not of proprietary specifications but are those of alternate technology. The use of product names has long been frowned upon and I am amazed that anyone could even find one. The magazine has degraded its own prestige by publishing such a misleading article.

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Thank you for your candid comments on Mr. Petrone's article. Anyone, Mr. Petrone or readers, may want to comment on the things you brought up. If so, comments are welcome in future issues.

Got a question, comment, suggestion, or gripe? Please send it to:

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'I was sworn in . . . the highest ranking Negro in the Navy.'

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any, left who could qualify.

After reading the notice to my wife I said that I would look into the matter.

I was examined the next day. Though 43 at the time, I passed the rigorous physical examination with flying colors—except for my eyes. With my glasses on I was okay, but not with them off. After glancing through my record the doctor remarked, "With that record I am not going to turn you down. I am going to recommend a waiver," and he did.

A few weeks later in the presence of my family and a close friend, I was sworn in. News of the ceremony and a picture of the family were widely circulated far beyond the continental United States. As a full lieutenant during this war and shortly after, I was the highest-ranking known Negro in the Navy which position I retained until I was released to inactive duty with the rank of lieutenant commander. I was told later that the announcement was widely read and brought much satisfaction, particularly to Negro enlisted men.

The indoctrination school was peopled by the very young just out of school, older volunteers like myself, and a number of veteran officers who had been commissioned directly from the construction field and immediately sent to the Pacific to direct enlisted men who, like themselves, had been sent to duty with the benefit of little or no military instruction.

After several months of active duty overseas, some under enemy fire, these men were now being given training in military tactics, weapons, and being duly indoctrinated with the history, duty, and responsibility of being "an officer and a gentleman." They gave a sobering reality to the otherwise essentially academic or "Boy Scout-like" physical and military training exercises.

It was in one of these field exercises that I lost my first buddy. Shortly after my arrival I found myself teamed up with a former regular Navy chief petty officer who had come back to get a commission.

His years in the regular Navy had given him knowledge and a point of view which were invaluable to a raw recruit like me. He knew the insignia, the names and formalities which were expected, and especially "rocks and shoals." So our off-duty hours were a continuous exchange of valuable and pertinent information.

The relationship was an admirable experience for me and lasted until one of the night maneuvers when he fell and struck his head so forcibly against his own weapon that he was hospitalized and later released without obtaining the commission he so desired. He returned sadly to civilian life.

Except for the early loss of my buddy, "the 90 wonder days" were mostly happy from that first salute. During those 90 days I cleaned, assembled, and fired weapons (collecting an "expert rifle" and

Dr. and Mrs. Hope share a light moment about their interesting past.

narrowly missing similar success with the pistol), studied the Blue Jacket's Manual, naval history and regulations, took all the physical exercises though over forty (the "excuse age"), and drilled my fellow officers under the watchful eyes of the Marine drill instructor when it came my turn.

With days of study practically over, excitement was rising, increasing as each student returned with orders to report there and yonder.

I was assigned to remain at Davisville, however, to make a report on Haiti, the only country in our history where the U.S. had undertaken the operation of a military government.

There had been a long period between the time I submitted my application and passed the stiff medical exam to the time I was notified there was a commission for me. I was finally granted the rank of full lieutenant, the lowest possible rank at my age.

To me, the word "Navy" had always been synonymous with the word "ship." Of course I had heard of and admired the famous Seabees but I expected to have sea duty. It was only long after I had signed myself over to the Navy that I finally realized it was improbable that I would have any form of sea duty.

At last my orders came. En route to my assignment there had been a long layover in San Francisco until I could learn to swim, jump off a 20-foot-high diving board (simulating the deck of a sinking ship), and then to put on a life jacket while in the water.

Early one morning some weeks later, we arrived in

Hawaii! All were hurried down the gangplank and onto waiting trucks and transported to staging places and gradually dispersed according to orders, except me. Once again, I was the only one left. No one seemed to know where I was to fit in.

During the weeks and months since reporting to Davisville I had been learning and enjoying this new Navy life—the weekend shore leaves; going in groups to Providence, Boston, the shows in New York; and especially the visits with my wife.

At school I was busy absorbing information about the operation and maintenance of the usual Seabee earth-moving equipment, etc., but more especially I was absorbing the "Navy way" from the Seabee point of view and expected ultimately to take my place with them in some forward area. Meanwhile, however, attitudes and events were conspiring together to determine my assignment and future.

With the sudden expansion of the armed forces due to the war effort, Negroes began to be utilized in the Navy outside the traditional mess man or servant's role. One of the fields in which they traditionally worked as civilians was in the loading and unloading of ships. So in Hawaii especially, many were assigned to stevedore duty.

Desegregation was a late arrival in the war effort, particularly in the Navy, so that near Pearl Harbor a large group of Negroes was housed together in a special camp where by truck they were dispatched daily to the docks in the morning, similarly returning at night. Off duty and on leave they wore the same uniform and carried themselves as other men in other Navy groups.

Unfortunately this did not sit well with some traditional-thinking Navy men and these new Negro recruits did not know and accept the old subservient attitudes.

This was a war against the idea of a master race. In this the new recruits were in full accord and willing to fight against it on land and sea and in Europe, America, or Hawaii. The war's ideals were sometimes and by some people interpreted differently, so conflicts developed and spread and blood was shed.

In fact, one Civil Engineer Corps (CEC) officer with whom I had been closely associated later told me that it seemed that more blood was lost in the Pacific in an extension of the Civil War than there was in fighting the enemy. This condition was later the subject of a civilian investigation.

On the day I landed in Pearl Harbor my lonely vigil was interrupted with the news that at last someone was coming for me, and finally a huge Negro ensign claimed me and we were soon on our way to Manana Barracks in his jeep. On the way he gave me an introduction to the conditions at my new home. It was a good camp but some conditions needed improving. With trucks and jeeps coming and going the camp was usually in a cloud dirt and dust, red dust which filled the air and came off your body like red ink when you took a shower. It stained and permeated everything!

But of more significance was the administration. The officers were mixed, most of them recently commissioned, the Negroes mostly ensigns and boatswains. The rest were white and filled the upper ranks and positions. Some of the whites were said to be "leftovers" and determined unfit to officer white troops. It was alleged that their commissions or other papers stated that they were not to be used except for Negro troops. And the Negro troops seemed to know it! There were bad feelings and an occasional flair-up particularly with these latter officers.

I found myself thrust into this complicated, highly volatile situation, the newest, most recently commissioned officer of all, but also the highest-ranking Negro in the entire Navy. Hence, in the eyes of the Negro enlisted men and officers, I was the hope for improvement for others, one to be watched.

The position of public works officer is not unlike that of superintendent of buildings and grounds. So, while some of the details and methods were new, the overall work was not unfamiliar to me and generally proceeded satisfactorily.

Since my Navy duty began, there had been relatively little discussion of the war itself although it was always in mind. At Davisville we drilled and fired weapons and though exciting, it was only academic and a bloodless competition.

In Hawaii the real war became much more evident. The effects of the Pearl Harbor attack, particularly the wrecks of warships in the harbor, the frequent coast defense firings at night, the issuance of side arms, the occasional blackouts which were not practice drill, and the resultant tense watching and waiting with our respective divisions, not knowing what to expect.

From many of the ships, wounded were being transferred to hospitals. There was also the occasional happy return of a submarine with a broom fixed upright at the forward part of the conning tower, the sign of a "clean sweep." With all these sights constantly before us we knew we were definitely in a grim fighting war and paying a heavy toll.

Meanwhile it had been determined that this whole tinder box, Manana Barracks, must be moved far out beyond Pearl Harbor and up in the hills on the Mauka side of the road circling the island. Among my primary duties was a study of the state of the new barracks and surrounding area: what was left to be done and how was it to be done?

The new Manana Barracks beautifully located high on a hillside overlooking Pearl Harbor and surrounded by cane fields was much like its predecessor, clouded with dust from activities across the road and the kicking up of dust by tires and feet within. The roads through the area, though well laid-out and constructed, were built of coral and not topped with anything. Crushed coral seems by nature to be mud when the least bit wet, but to become fine dust when dry with no intermediate state. In an effort to minimize this dust, we transplanted truckloads of unwanted grass from the cane fields to all plantable areas in the place.

But the most important part of this project, as is often the case, resulted from the mutual recognition of the "crossed bananas" on our respective shirt col-

lars and an exchange of personal information and experiences. During the casual conversation I was asked, "Do you need any asphalt?" Does a fish need water? Yes! Yes! Yes!

So with the help of my new-found benefactor and Seabee equipment operated by our personnel, we began shaping up the coral surfaces and spreading the asphalt which began arriving by the truckload. What transformation within a few days! Hundreds of men could then breathe and smell the clean sea air instead of breathing dust. I was the hero of the moment. The commanding officer was so pleased that he recommended and arranged for a long leave and visit to the "big island" for me.

This is not to say that one should look for or plan to obtain such advantages, for virtue is its own reward. But goodwill and interest in and concern for others often brings other rewards. It's too bad there is not more of this between men and nations.

Racial prejudice did exist . . . practically throughout the Navy. What else could be expected after hundreds of years of slavery . . .

As construction and improvements were completed and buildings and grounds became more habitable, and increasing success in the distant fighting war became known, the duties became less exhausting and the routine less exacting. Various activities were planned for both officers and enlisted men.

What was originally only an outdoor movie screen gradually became the open-air theater, "the Trade Winds," with a stage and dressing room for actors and dancers. For the officers, the show would be only the start of a social evening where wives and girlfriends were brought and later taken to the BOQ for dancing.

From here was probably the best view of the most spectacular "show" produced during the war. As the regular show was proceeding one evening suddenly there erupted before us the greatest fireworks display I have ever seen. Word had come that "the war is over" and apparently every ship in Pearl Harbor which lay below us got into the action with rockets, flares, tracers, and everything they had to light up the skies.

When it appeared that I was probably destined to stay in Hawaii for the duration, I began to develop contacts outside the Navy. A Negro, Samuel Danley, in an important federal position, was in Honolulu with his wife and two daughters. His home became quite a lovely place to visit.

Another long-time resident, a prominent Negro businessman, Knolle Smith, an outstanding member of the island community, welcomed me (and later my family when they came to Hawaii) to his home and the wider circle of the island community.

A former Columbia University schoolmate invited by me to one of our social events, brought his wife and several of his Chinese friends, one of whom I found good company and who became my usual guest at affairs at the Manana Barracks and later, after the arrival of my wife, was instrumental in introducing us into other Chinese homes.

As probably one of the most senior in age if not in rank, with wide travel and experience and contacts, I always seemed to stand fairly well with both enlisted men and fellow officers. Of course not all was rest and recreation for me.

My authority at Manana Barracks was sometimes challenged and attempts made to circumvent it through the position of first lieutenant. Once I discussed the possibility of a transfer to a Seabee battalion but things never got completely out of control or unbearable especially after I found that some of my administrative problems were not entirely or even primarily based on racial prejudice.

In this connection I remember hearing how a high-ranking CEC officer "rescued" another CEC officer who, with his Seabees, was being maneuvered into the performance of only the most menial jobs. His rescuer, a huge man, suddenly appeared one day for a hurried "inspection." He had ample scrambled eggs on his cap and a raincoat which in those days did not exhibit a rank insignia, an authoritative bearing, the gift of gab, and colossal "brass." Without identifying himself too precisely, he somehow convinced the relatively young, offending line officer in command that Seabees and officers were *not* to be thought of as mere menial housekeepers. He added that the offending line officer would "probably be hearing from higher up and that meanwhile, it would seem expedient for him to change his ways!" It worked!

Some of my problems were only part of a larger problem symbolized by the then "officer in charge" designation of CEC officers instead of the "commanding officer."

Racial prejudice did exist at Manana and practically throughout the Navy. What else could be expected after hundreds of years of slavery followed by reconstruction, the KKK, and other methods of control and intimidation? The civilian powers that be and the Navy were to be commended for the change in attitude which was proving to be relatively successful.

Meanwhile, the attitudes and conditions which had existed, and were the reason for the move of Manana Barracks to its present location, had improved little if any. Almost any unfortunate act whether racially motivated or not was often perceived as being so. Nor did the isolation seem to improve the morale of the personnel, including that in my own division. Though integrated, the majority in the higher ratings were white. They were all, both white and Negro, skilled mechanics, generally older, more mature, and less volatile than the average.

There was an endless variety of interesting, urgently needed work but not so urgent that they were needlessly pressured. They had good tools and equipment, unlimited supplies and materials, and could see the progress they were making—all lending toward satisfaction and esprit de corps.

But the Negroes in general were apprehensive, suspicious, resentful, and unhappy. And the whites, if for no other reason than the attitude of the Negroes, were not very happy either. The negative attitude of the Negroes was based partly on having to endure what they saw as favoritism by the whites toward the whites, and injustice toward their darker shipmates, and partly on other more remote matters.

One of my duties was to censor the mail being sent out by my men. Knowing this, the Negroes were probably less guarded in what they wrote (or didn't write) than they might have been. In any case it was evident from these communications and my own observations that they were increasingly concerned by the printed news and communications they were receiving through other channels.

How badly were their loved ones being treated, particularly in the south? How would they be received when they returned? Many knew of the fate of their fathers and uncles who returned after World War I to be paraded in New York, but "put in their place" and even lynched after their return to their homes. What of the KKK? What would *they* find on their return this time?

Finally, in a quiet meeting in our shops one night with only the Negroes present, they gave full and open vent to their feelings of frustration and resentment at things all the way from within our division to treatment in Honolulu and white America in general. I could fully understand.

No agreements were reached nor plans or promises made. I think just getting some things off their chests to a relatively high-ranking, understanding, and sympathetic person served a useful purpose. There followed some transfers, some promotions; the war seemed to be winding down and some went home. But the pot never boiled over nor again reached such a boiling point.

One of the most interesting as well as illuminating assignments I ever had was to assist Walter White. Reports of the racial difficulties I had found when I arrived had evidently filtered back to Washington and the NAACP. Walter White was one of those sent over to investigate.

There were conferences in Hawaii with superiors but first-hand, grass-roots information and evidence were also collected. White and I would take to the roads in a jeep. General Navy instructions were that vehicles with vacant capacity were to pick up Navy personnel walking in the same direction. That we did.

Whereupon White, with the expertise of long study and experience, would begin to ask casual questions which usually led the whites to straight and guileless answers indicating their life attitudes toward the Navy and, in response to deft questions, toward Negroes in particular. These ranged from commendable to highly abusive, the latter indicating the fact and source of the trouble under investigation.

Such an approach to Negro personnel seldom brought forth any quick responses and, if there were any, they were guarded—until White would finally say, "Come on fellows. I am Walter White. This is Lieutenant Hope. Give!" Whereupon the dam would be broken and a flood of information, rumor, and fact would pour out, confirming and sometimes giving verifiable facts and figures on the mean and unfair conditions under which most of them had to operate, and which they attributed to racism. This also confirmed that my men, especially if alone, while returning from leave at night were subject to humiliation and even physical violence based primarily on racism.

Before the end of my war-time duties and so that my later veteran's memories might include more than what might appear to be only the smooth and glamorous life in Hawaii, I had the opportunity to serve on a general court martial in the far forward island of Okinawa.

I was able to see and taste a bit of life on what had very recently been the fighting front . . . Wake, Guam, and Okinawa. The latter's capital city of Naha was just beginning to rise from rubble, and elsewhere were the remains of little native villages with survivors, mainly the very old and very young, struggling to salvage the remains of their crops and possessions and trading war souvenirs for cigarettes and much cherished soap, and trying to restore their homes and revive their lives and customs when permitted by the military.

The life of the occupying forces was primitive and rugged as compared to that in Hawaii. Helmets still served as wash basins and one enjoyed such amenities and recreation as was available, e.g., the occasional open-air movies, even if one had to sit in the pouring rain to see them, as I did.

The court was called to try some Negroes whose sentence could be death. When a person cannot be tried by his peers, especially when facing such dire consequences, at least one peer might be better than none. One person in such a group may put the others on guard and minimize injustice if it might tend to exist, especially if that one is qualified and unafraid. The Navy is to be commended for at least making a start and I am glad that I was available as a token at least in this grim phase of possible duties.

One morning I received orders transferring from duty at Manana to Navy Pacific University (NavPacU).

Together whenever possible, Mrs. Hope has shared most of Dr. Hope's "highs and lows."

When I reported, the officer said he knew that I was expecting release to inactive duty, and he offered me a promotion and to have my family brought over from the mainland if I would extend for at least six months.

With the full approval of my wife and boys I accepted the arrangement and began at the school which was rapidly expanding. Many took advantage of the opportunity to study at NavPacU. I was soon given the position of director of instruction and the red tape set in motion to get the promotion and my family sent over.

My most important day in the Navy was when the transport bearing my wife and sons sailed into Pearl Harbor. My life was again complete. For Marion, too, gone were the nights when after a long, hard day with gasoline rationing, food shortages, and problems at school with the boys and other problems at the office, she had at last sat up in bed to write me that cheery, newsy, "don't worry" letter, only to wake up in the morning with the letter incomplete and the pen still clutched in her cramped fingers. The war had been harder on her than on me!

As a symbol of reprieve from her frustrations and sufferings, on the way home we stopped at the PX, I swung open the big, heavy door of a refrigerator revealing stacks of butter and said, "There, help yourself!"

When my promotion had not come through, the commanding officer made an inquiry. At the main office at Pearl Harbor he was told that everything was in order, ". . . but you don't want to see a N---- lieutenant commander, do you?"

A big, powerful man, he most emphatically did, and banging on the desk said, "If Lieutenant Hope's promotion doesn't come through in 48 hours, Washington is going to hear from me," and walked out.

Soon after my wife and I were receiving congratulations.

After NavPacU closed, I served as an assistant public works officer at Pearl Harbor for a time, then decided to leave the service, and remain in Hawaii.

I received an offer to be a civilian employee at the Barbers Point Marine Air Base. Arrangements were made for my personal effects to be packed and shipped from Washington, and my mother came over to live with us.

I had understood that as a former officer I would have priority on quarters in the Navy housing project. I had applied, been accepted, and given a key so I could look over the assigned quarters with a view to moving in. It turned out to be located at the far corner of the area with a very busy, smoky railroad on one side and some equally undesirable feature on the other side.

As we toured the area we found many other vacant houses that were available, but there was not another house available to us. That night while we were thinking this over my son went to a barber shop where he had some difficulty due to his dark skin. Racism again! And of all places, in Hawaii, which was supposed to set a good example for the nation on how to handle racial matters.

The next day I saw the man with whom I was going to work at Barbers Point. He said sadly that it was too bad that he had been unable to retain several skilled craftsmen whom he needed because of the policy with regard to Negroes. He had hoped that, being an officer, I would have escaped such treatment. He was really sorry but could do nothing about it.

I hurriedly cancelled my request for discharge in Hawaii and the shipment of my personal effects. A little later, my entire family and I were on the way back on a Navy transport returning almost empty via San Francisco and the Panama Canal to Norfolk.

During the trip I wrote to Secretary Forrestal to thank him for his part in opening opportunities for Negroes in the Navy. Later in Anacostia, just as I was about to sign the final papers returning me to civilian life, a yeoman snatched them from me and told me that I was to report to the Secretary. The Secretary thanked me for the letter and wanted to know whether I wished to stay in the Navy. I thanked him but observed that I was pretty well along in years to be starting a regular Navy career, especially during a period of reduction following the war. I said that I had felt comfortable as a volunteer, especially in the CEC, and that I hoped there would be a place for younger men to start early and rise normally in the Navy, and whatever I could do for that purpose I would be most happy to undertake.

As a result I was then sent on a long trip to visit a number of Negro colleges to "show the uniform" and speak on the "unthinkable" possibility of a career as a commissioned officer in the regular Navy. After reading my report, Admiral Denfeld, Chief of Naval Operations at the time, told me he considered that I had accomplished my mission.

Shortly thereafter I was released to inactive duty but continued with the reserve unit at the Washington Navy Yard until I went to the American University of Beirut in Lebanon to be the head of the department of civil engineering.

I am exceedingly glad that the U.S. Navy finally started the policy of integration and that the number of commissioned officers who are Negroes has increased, at least one having recently retired with the rank of Admiral.

I take pride in the memory of having encouraged Negro college students to enter NROTC units in which they may start careers leading toward higher ranks than were ever dreamed of during World War II.

I take satisfaction in the great number of forward-thinking individuals who participated in the initiation and implementation of the policy of racial integration and especially those who, in spite of inherited and or other difficulties, have continued to actively support this principle.

There still remains the necessity for recognition of the value of every individual and a constant effort to eradicate racism. Such efforts are a definite contribution not only to the effectiveness of the Navy but also to the peace and well-being of the nation and of the world. □

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